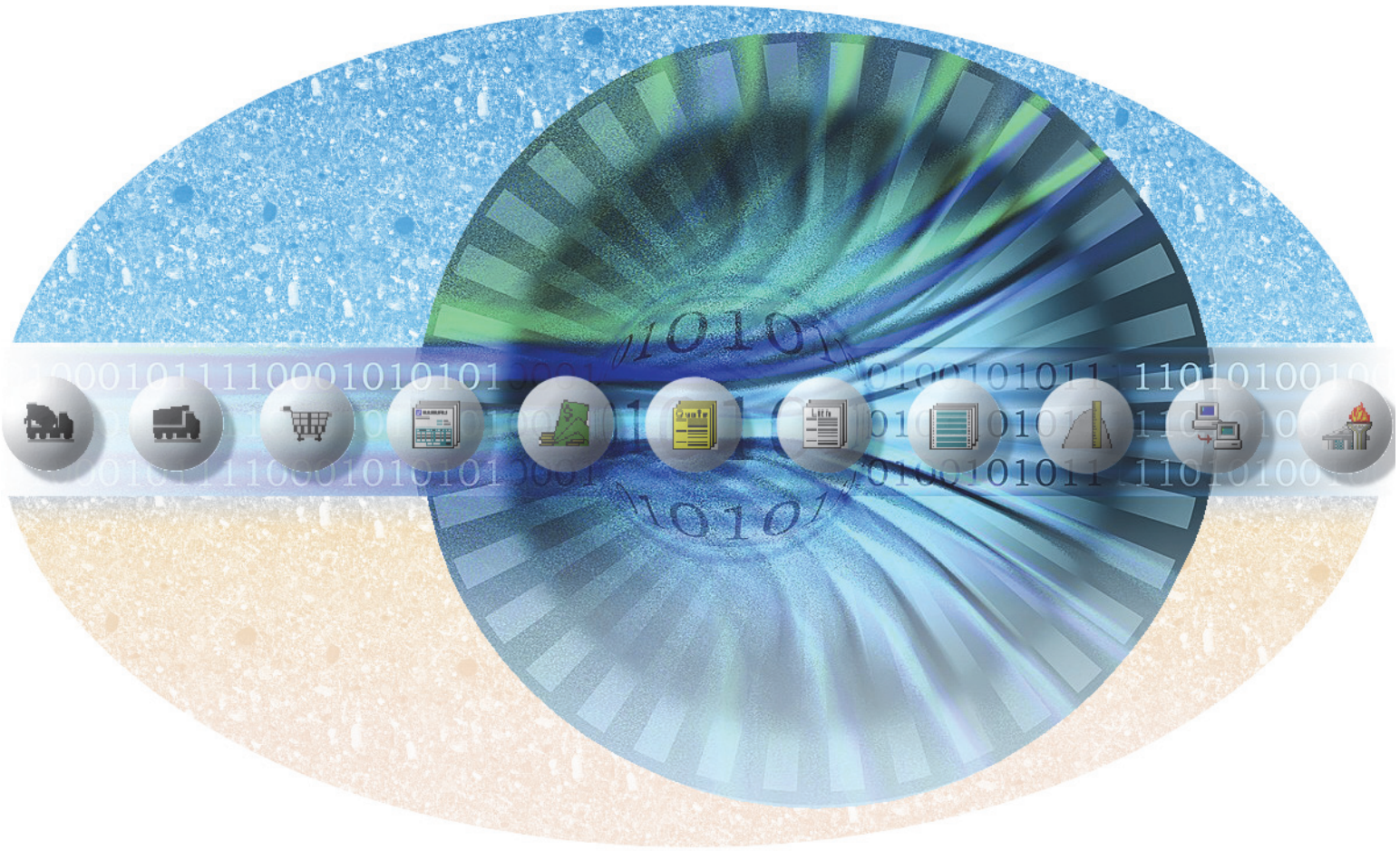
COMMANDseries CS08



COMMANDfleet

1/14/15

Command Alkon

Solutions To Build On

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Welcome to COMMANDfleet

COMMANDfleet is a vehicle data collection tool that provides an integrated and centralized fleet communication center allowing for simplified diagnostics of one or more vehicles. COMMANDfleet is based on a reliable, remotely serviceable, scalable platform to support future modules and vehicle data.

COMMANDfleet Is Your Fleet Signaling Solution

What does COMMANDfleet do?

- Delivers real-time and historical vehicle event and location information to the appropriate managers.
- Provides real-time and short-term historical drill-into support as a dispatch tool.
- Provides a centralized fleet communication center to one or more vehicles based on business scenarios.
- Delivers real-time status and message events to dispatchers and other managers.
- Collects vehicle on-board data including GPS and various electronic sensors, and provides a flexible data mining and presentation for both dispatchers and managers.

The COMMANDfleet User Manual

This user guide contains helpful information regarding the initial installation and subsequent upgrades of COMMANDfleet, the use COMMANDfleet for your business operations, and the integration of COMMANDfleet to other Command Alkon products.

Included Sections

- ***Before Installing COMMANDfleet*** - This section contains general information regarding the necessary hardware and software to run COMMANDfleet successfully. Whether you are considering the installation of COMMANDfleet for the first time or you are upgrading your current version, you should consult this section of the manual to ensure that all of your components are compatible.
- ***Installing COMMANDfleet*** - This section outlines the steps required to install the COMMANDfleet package in order to interface with trucks using Command Alkon's VSC (COMMANDsignal), TrackIt, or any other 3rd party signaling vendor. It also details the upgrade procedures for COMMANDfleet and its COMMANDseries interface.
- ***The CSIS Protocol Manager*** - This section only applies to those using a COMMANDsignal PM and deals with the initial configuration as well as the general use of the CSIS PM.
- ***Using the COMMANDfleet Dispatch Desktop*** - Note that this section of the manual is aimed at two types of users:

- Normal user - This is a person who uses the program on a daily basis.
- Configuration manager - This person sets up the screen layout using one or more monitors, including the window positions, window sizes, columns displayed, widths, and so on. Once the configuration has been set and saved, it can be "locked" so other users can't change the layout. This promotes a level of consistency among the user group.

- ***Appendix*** - This section provides reference information related to the integration of COMMANDfleet to other Command Alkon products including COMMANDoptimize and COMMANDbatch.

Before Installing COMMANDfleet

Topics in this section:

COMMANDseries Licensing and Modules

COMMANDfleet Hardware and Software Requirements

The Components of COMMANDfleet

COMMANDseries Licensing and Modules

The following licenses or modules are needed in COMMANDseries before beginning the installation of the CSIS components:

- **MS (Mobile Signaling)**: Provides the signaling interface between COMMANDseries and COMMANDsignal/COMMANDfleet. Prerequisite modules for MS are OE (Order Entry) and TT (Truck Tracking).
- **AS (Auto Statusing)**: Sends trip packets to trucks in order to identify the Plant and Job Site coordinates.
- **MO (Map Order Entry)**: Control + I functionality to capture GPS coordinates for Job Sites.
- **FL (COMMANDfleet)**: This allows COMMANDfleet to be opened within COMMANDseries and/or COMMANDtrack.
- **Signaling Unit**: COMMANDsignal with CSIS (27) for COMMANDsignal systems or 3rd party ENH (26) for 3rd party systems. One Signaling Unit is required for each signaling interface in the event that there may be multiple interfaces.

  For more information on configuring a signaling unit, see Preliminary Microsoft Installations and COMMANDseries Settings.

The following licenses or modules are optional:

- **MT (Map Truck Tracking)**: Provides Truck location capability from COMMANDtrack.
- **WA (Water Added)**: Requires the trucks to have water meters and JBUS data installed.
- **ST (Snail Trail)**: Delivery cycles can be displayed for current day and historical lookups.

COMMANDfleet Hardware and Software Requirements

Hardware Requirements

It is suggested that you have the following hardware before installing COMMANDfleet:

No. of Trucks	0-50	50-200	200-500
Processor	1 P4 2.0 GHZ	Dual Core 2.4 GHZ	Dual Xenon Hyper-threaded 2.4 GHX
Memory	2.0 GB	3.0 GB	3.0 GB
Storage System (OS/ Local)	1x40 GB SATA or EIDE 7200/10,000 RPM	RAID 1 2x40 GB SATA or SCSI 7200/ 10,000 RPM	RAID 1 2x40 GB SATA or SCSI 7200/ 10,000 RPM
Storage System (DB Sizing)	Update DB storage for new requirements	Update DB storage for new requirements	Update DB storage for new requirements
Operating System	Windows 2003/2008/ 2008 R2/2012 Server SP1	Windows 2003/2008/ 2008 R2/2012 Server SP1	Windows 2003/2008/ 2008 R2/2012 Server SP1

Note: For 500+ trucks, please refer to the Command Alkon Technical team for COMMANDfleet server requirements.

Software Requirements

The following should be installed or enabled before beginning the installation of the CSIS components:

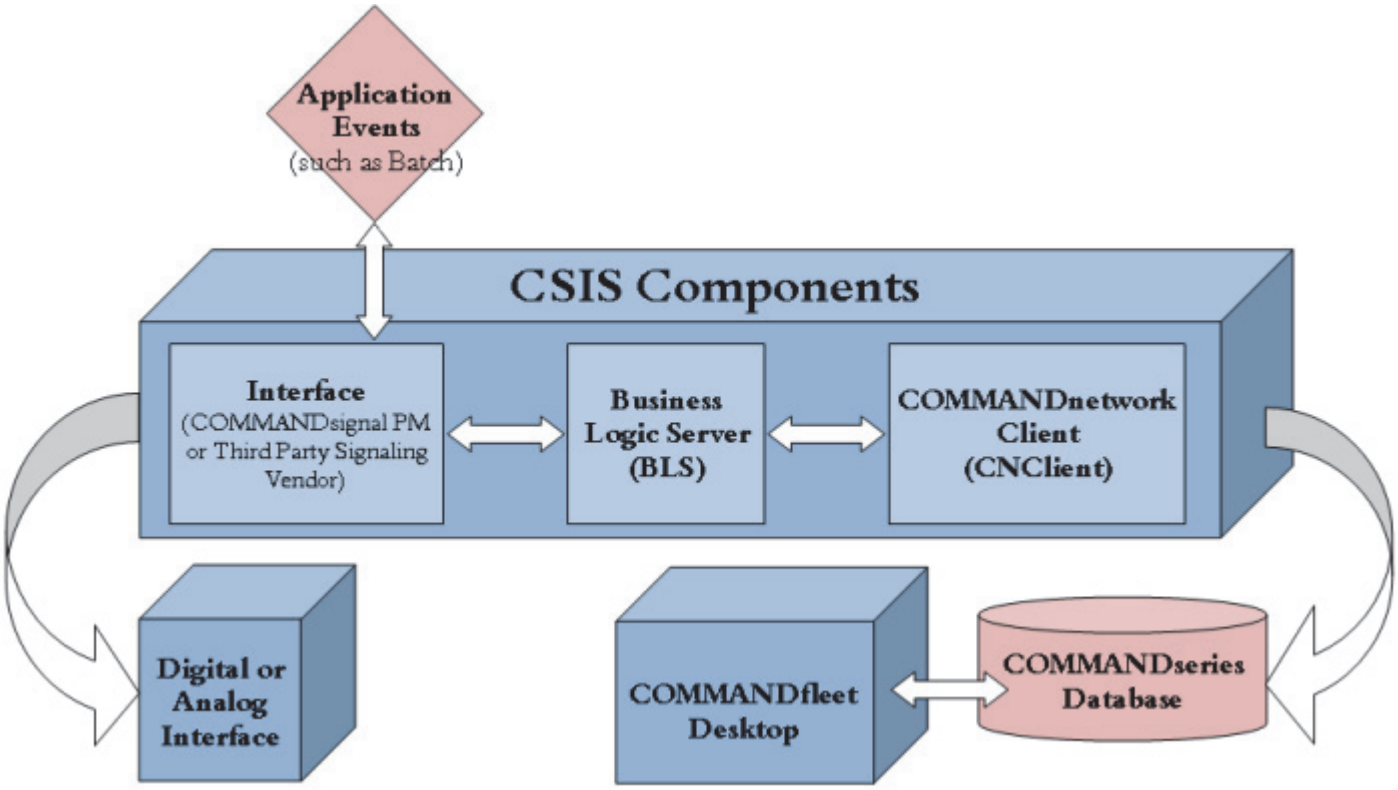
- COMMANDseries v5.54 and higher or CS08
- Oracle client/ Oracle database connectivity or ODBC connection for SQL Database

  ***Note**: 64-bit machines require both the 32-bit and the 64-bit Oracle clients to be installed with a path to the 32-bit client.*
- Remote Desktop enabled (VMWARE or PCAnywhere not recommend)
- Microsoft Message Queuing (MSMQ) enabled
- .NET Framework 3.5.1

  ***Note**: 64-bit machines require .NET Framework 4.0 in addition to 3.5.1. Also, CSIS 2.5.5 and earlier require only a minimum of .NET 2.0.1.*
- One COMMANDnetwork client license per CSIS instance (for the CNClient)

For more information on enabling or installing MSMQ and verifying your .NET Framework, see Preliminary Microsoft Installations and COMMANDseries Settings.

The Components of COMMANDfleet



There are three main components of COMMANDfleet including a digital or analog interface, the COMMANDfleet Desktop and the COMMANDseries Integrated Server.

COMMANDseries Integrated Server (CSIS)

Protocol Manager (PM)

The PM is the gateway for all inbound/outbound fleet traffic in a COMMANDsignal system. It replaces the VSC Base software, but has the same look and feel as the traditional signaling interface.

- Handles all protocol management to and from the fleet.
- Accepts Load Events from Batch Consoles.

Business Logic Server (BLS)

The BLS is the logic portion of COMMANDfleet and is where most of COMMANDfleet is configured. A BLS Manager can be created for quick access to the service that resides in the Windows System Tray.

- Replaces COMMANDcomm in the traditional signaling interface.
- Manipulates, stores and retrieves data to and from the COMMANDseries database.
- Key component in Trace and Error Logging.
- Runs as a service.

COMMANDnetwork Client (CNClient)

The CNClient is the COMMANDnetwork Client for COMMANDfleet. A CNClient Manager can be created for quick access to the service that resides in the Windows System Tray.

- Communicates to the COMMANDnetwork Server.
- Runs as a service.

Microsoft Message Queuing (MSMQ)

This replaces the serial cable in the traditional signaling interface and enables messages to be sent to and from the PM, BLS and CNClient services.

Installing COMMANDfleet

Before beginning the installation, it is suggested that you review the Before Installing COMMANDfleet section of this manual so that you are familiar with the hardware and software requirements.

Topics in this section:

Preliminary Microsoft Installations and COMMANDseries Settings

Using the COMMANDfleet Installation Wizard

Integration with COMMANDseries

Configuring the Command Alkon Configuration Console

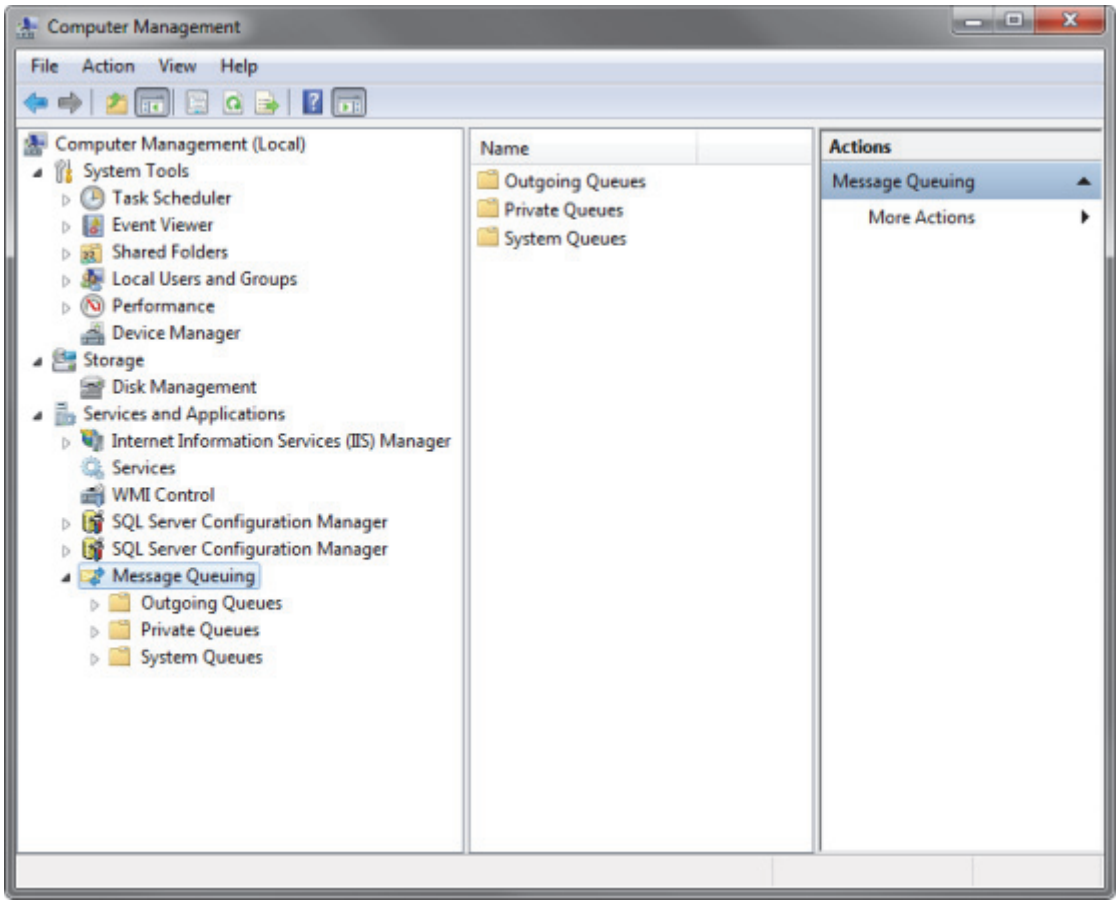
Preliminary Microsoft Installations and COMMANDseries Settings

Microsoft Message Queues (MSMQ)

Verify that MSMQ's are installed on the server that will be running the CSIS components by using the following process relative to your operating system.

For Windows 2003:

1. Select {*Start* > *Settings* > *Control Panel*}.
2. For Windows 2003, open **Administrative Tools** followed by **Computer Management**.
3. Expand the **Services and Applications** node by clicking on it.
4. If MSMQ is already installed there will be a **Message Queuing** entry:



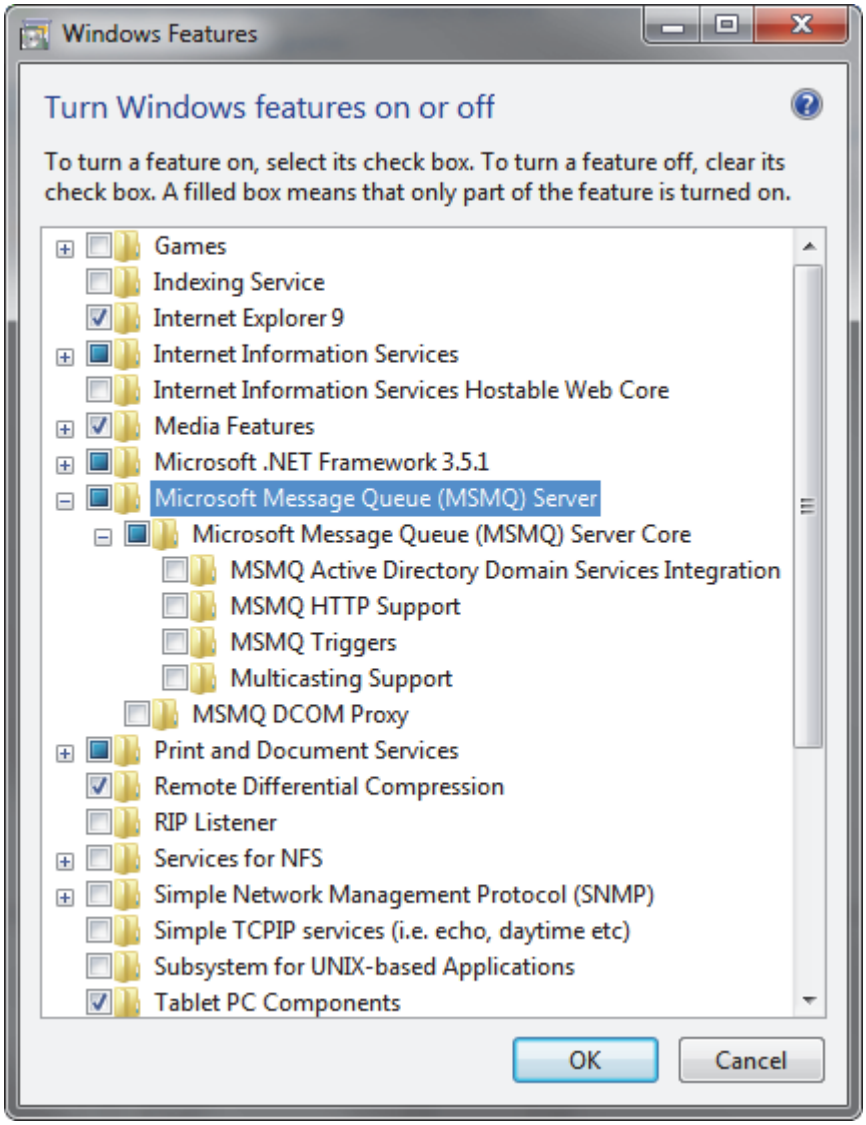
You will know that the MSMQ has been installed if, when on this screen, the Message Queuing entry is present.

5. If MSMQ is not installed, continue with the following steps.
6. From the Windows Control Panel {*Start* > *Settings* > *Control Panel*}, select **Add or Remove Programs**.
7. On the left side, click **Add/Remove Windows Components**.
8. Select the **Message Queuing** line and click on the **Details** button.
9. Select the **Common** checkbox and deselect both the **Active Directory Integration** and **Triggers** checkboxes. **Common** is the only checkbox that should be selected.
10. Click **OK** to close the *Message Queuing* dialog box. The *Windows Components Wizard* should now have **Message Queuing** selected.
11. Click **Next** to finish installing the MSMQ. The *Configuring Components* dialog box appears so you can view the installation progress. Two services (**`mqsvc`** and **`mqtgsvc`**) will default to starting automatically; do not change this.
12. Click **Finish** to close the wizard.

For Windows Vista or Windows 7:

1. Select {*Start* > *Control Panel*}.
2. Click the **Programs** link.
3. Under **Programs and Features**, select **Turn Windows features on or off**.

4. Expand **Microsoft Message Queue (MSMQ) Server**.
5. Make sure the box for **Microsoft Message Queue (MSMQ) Server Core** is selected as shown. Note that you do not have to have anything else selected.


Windows Features
Turn Windows features on or off
To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.
Games
Indexing Service
Internet Explorer 9
Internet Information Services
Internet Information Services Hostable Web Core
Media Features
Microsoft .NET Framework 3.5.1
Microsoft Message Queue (MSMQ) Server
Microsoft Message Queue (MSMQ) Server Core
MSMQ Active Directory Domain Services Integration
MSMQ HTTP Support
MSMQ Triggers
Multicasting Support
MSMQ DCOM Proxy
Print and Document Services
Remote Differential Compression
RIP Listener
Services for NFS
Simple Network Management Protocol (SNMP)
Simple TCPIP services (i.e. echo, daytime etc)
Subsystem for UNIX-based Applications
Tablet PC Components
OK
Cancel

An example of the Microsoft Message Queue (MSMQ) Server entry.

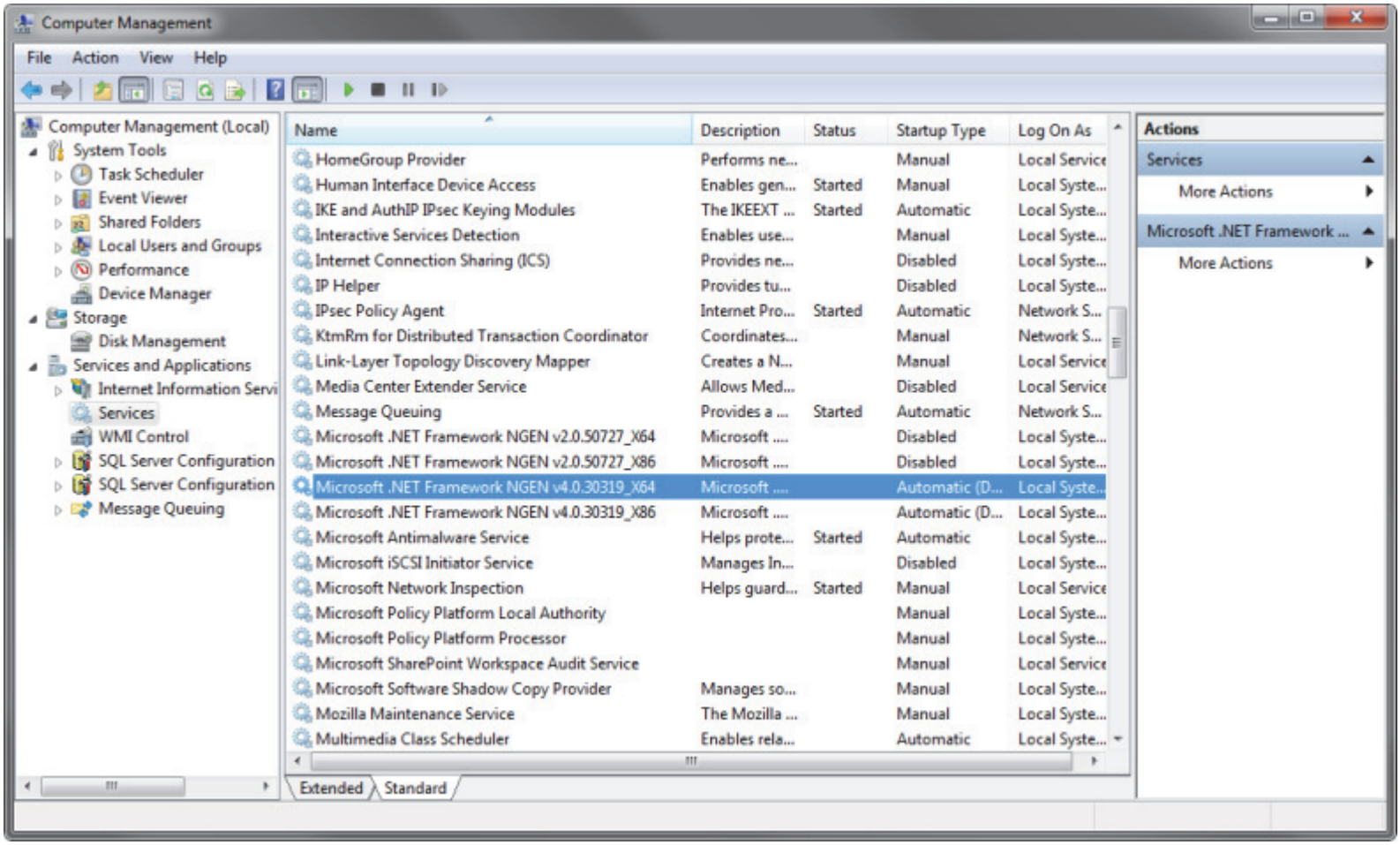
Microsoft .NET Framework

Verify that you have Microsoft .NET Framework 3.5.1 installed on the server that will be running the CSIS components by using the following process relative to your operating system.

For Windows 2003:

1. Select {*Start* > *Settings* > *Control Panel*}.
2. Open **Administrative Tools** followed by **Computer Management**.
3. Expand the **Services and Applications** node by clicking on it.

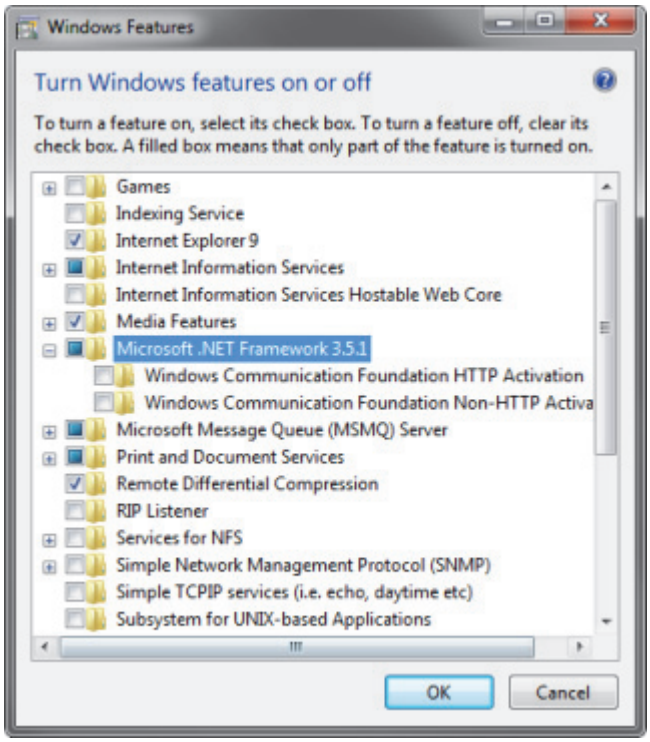
4. Select the **Services** entry.
5. There should be a service named Microsoft .NET Framework v3.5.1. In the example shown below, the user has Microsoft .NET Framework v4.0.3 installed.



An example of the Microsoft .NET Framework service.

For Windows Vista or Windows 7:

1. Select {*Start* > *Control Panel*}.
2. Click the **Programs** link.
3. Under **Programs and Features**, select **Turn Windows features on or off**.
4. Make sure the box for **Microsoft .NET Framework 3.5.1** is selected as shown below. Note that you do not have to have anything else selected.


Windows Features
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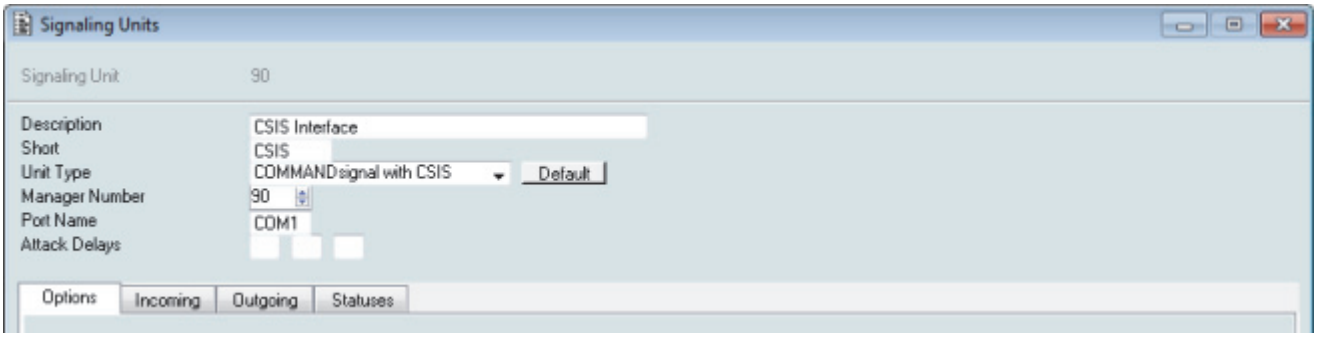
To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.
Games
Indexing Service
Internet Explorer 9
Internet Information Services
Internet Information Services Hostable Web Core
Media Features
Microsoft .NET Framework 3.5.1
Windows Communication Foundation HTTP Activation
Windows Communication Foundation Non-HTTP Activa
Microsoft Message Queue (MSMQ) Server
Print and Document Services
Remote Differential Compression
RIP Listener
Services for NFS
Simple Network Management Protocol (SNMP)
Simple TCPIP services (i.e. echo, daytime etc)
Subsystem for UNIX-based Applications
OK
Cancel

An example of the Microsoft .NET Framework entry.

COMMANDseries Signaling Unit Configuration

It is important to note that at least one signaling unit is required for each type of signaling solution. For example, if you are using TrackIt plus another 3rd party signaling vendor, you will need to configure a total of two signaling units.

1. Open COMMANDseries and go to {*Files* > *General Information* > *Signaling Units*}.
2. Create a new signaling unit by entering a new **Signaling Unit** number. You will use this information later when setting up the Protocol Manager. Tab to the next field.
3. Enter the following information for the signaling unit:

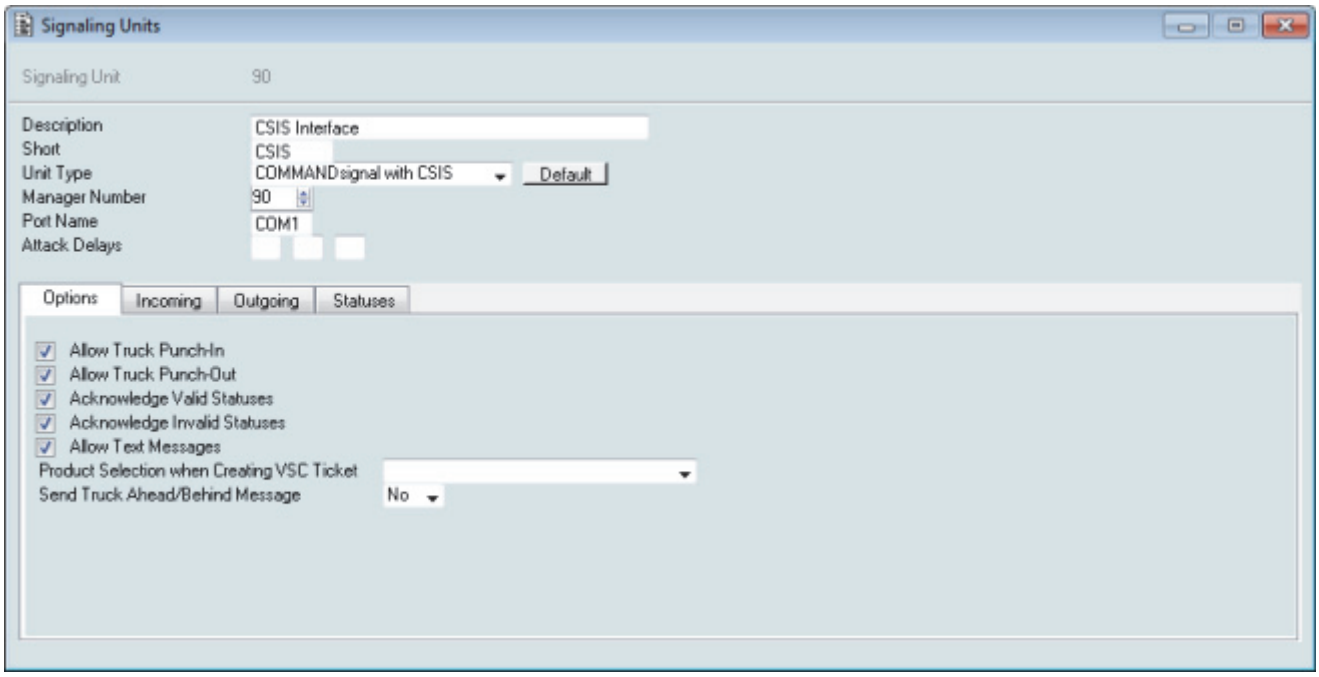


An example of the Signaling Units form in COMMANDseries V2.

- **Description** - Create a description for this signaling unit specific to the integration, such as CSIS Interface, TrackIt GPS, or Trimble.
- **Short** - Enter a short name for this unit, such as CMDsignal or TrackIt.

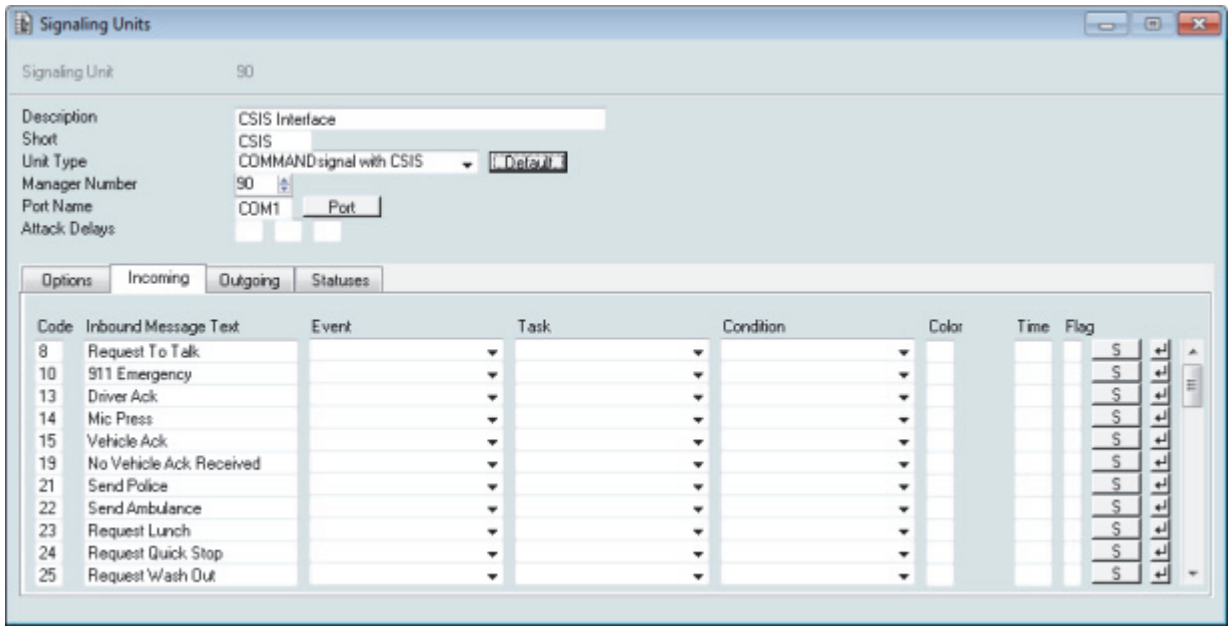
- **Unit Type** - Select a unit type based on your COMMANDseries configuration.
  - **COMMANDsignal** - Select this option for COMMANDseries version 5.56 and earlier, regardless of your configuration.
  - **COMMANDsignal with CSIS**- Select this option for COMMANDseries version 5.57 and later if you are using a COMMANDsignal configuration.
  - **Third Party ENH** - Select this option for COMMANDseries version 5.56 and later if you are using TrackIt, Trimble, etc.
- **Manager Number** - This can be any number that is specific to this signaling unit and must be unused by any other comm manager. You will use this information later when setting up the Business Logic Server.
- **Port Name** - This is an unused COM port that does not exist, however it is required that you have a value entered.
- **Attack Delays** - This is an old field that was used in conjunction with analog systems. It may be left blank.

4. The **Options** tab should be similar to the following:

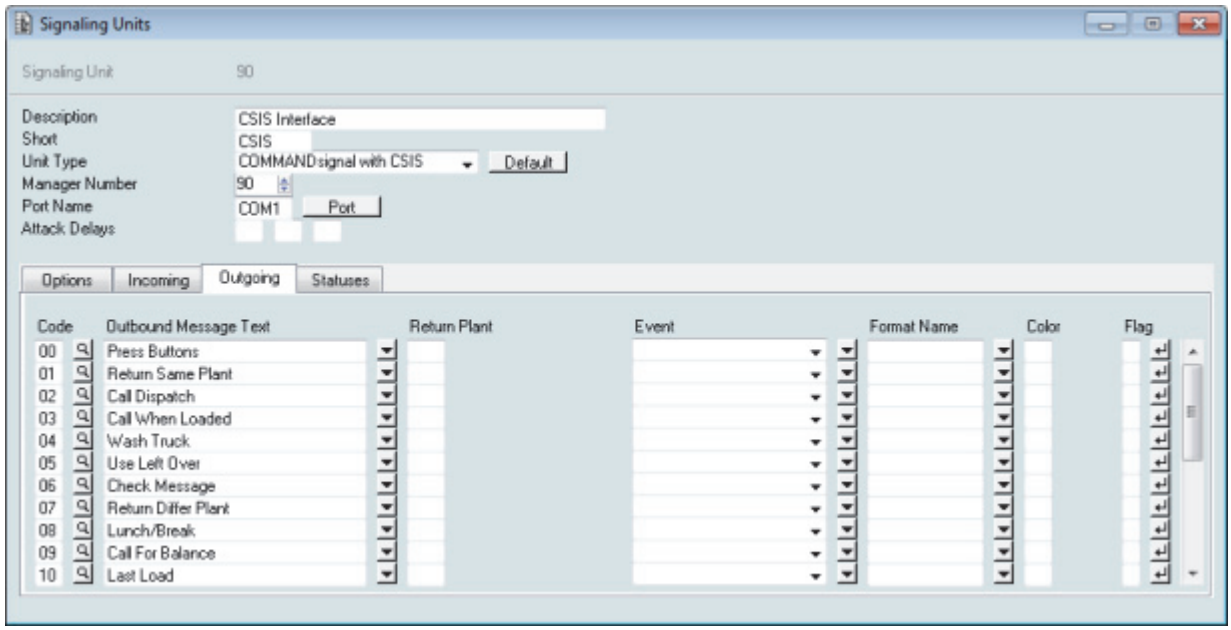


An example of the Options tab for Signaling Unit 90.

5. The **Default** button should be used to populate the messages under the **Incoming** and **Outgoing** tabs.

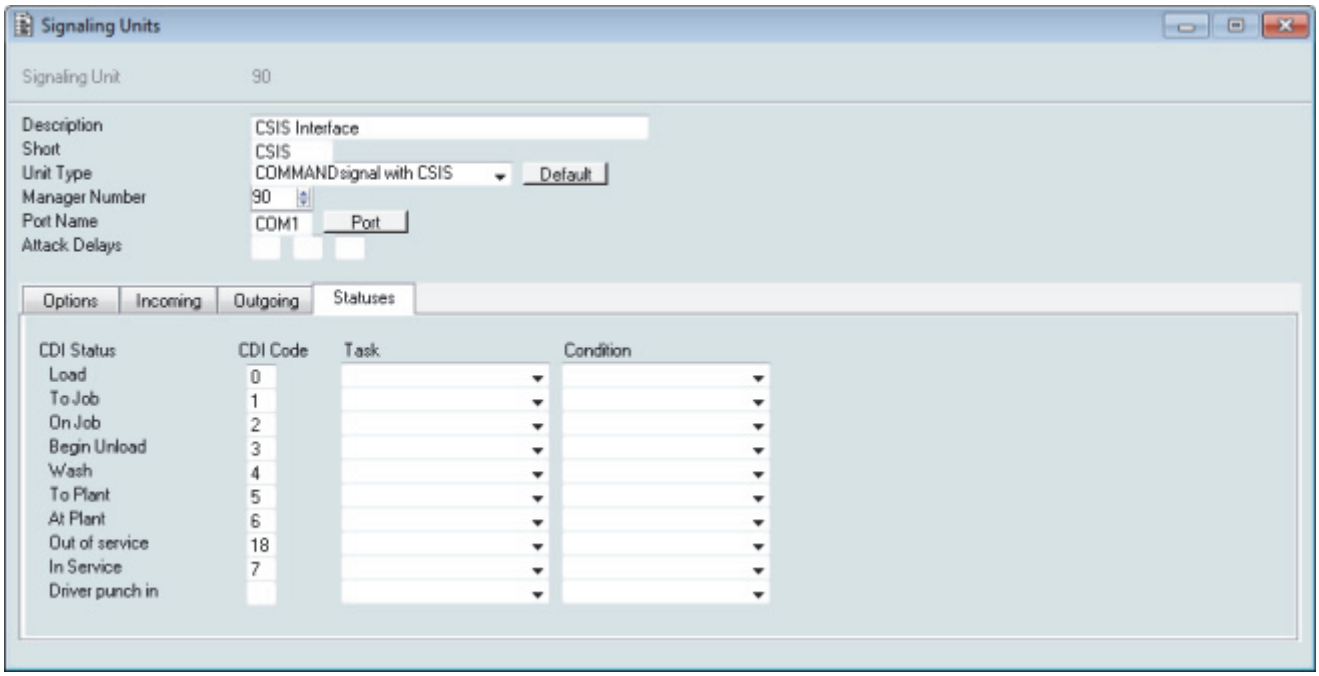


An example of the Incoming tab for Signaling Unit 90.



An example of the Outgoing tab for Signaling Unit 90.

6. Under the **Statuses** tab, the default statuses are populated as below but can be customized to match signaling interfaces:



An example of the Statuses tab for Signaling Unit 90.

7. Save the new signaling unit by pressing F2.

Using the COMMANDfleet Installation Wizard

Initial Installation of COMMANDfleet

The COMMANDfleet install package has all the files and applications needed to install the COMMANDfleet product suite. It is an integrated installation kit that ties together all the products required for a COMMANDfleet setup. This procedure is for a new installation; if you already have a COMMANDfleet installation, follow the instructions below in Upgrading COMMANDfleet.

1. Using Command Alkon's FTP server, copy the COMMANDfleet install package to the local machine that will act as the CSIS server.

   ***Note**: The installation package can be made available on a CD upon request.*

2. The *COMMANDfleet Setup* dialog box appears.
3. Select **CSIS** and click **Next**.
4. The *Destination Folder* dialog box appears. Click **Next** to accept the default destination folder `C:\CSIS\`. Browse to the appropriate drive letter if it is not `C:`.
5. After installing the necessary files, the *InstallShield Wizard Complete* dialog box appears. Click **Finish** to complete the installation.
6. After a few seconds, the *Command Alkon Configuration Console* will appear so you can set up the CSIS components. These are outlined in the Configuring the Command Alkon Configuration Console section.

The CSIS Installation Structure

The CSIS components directory structure is similar to the following illustration. The disk drive may vary.

```
C:\CSIS
    \BLS
      \BLSxxx
    \CNClient
    \Configuration
    \PM
      \PMxx
    \QueueMonitor
```

Notes:

- *The base BLS and PM folders are not the production folders. During the configuration process, additional BLS and PM folders are created.*
- *The* **\BLS** *folder is for the BLS executable only.* **BLSxxx** *is a separate working folder for the instance of BLS that is running for the configuration. For example, BLS600 represents Manager Number 600 for the BLS.*
- *The* **\PM** *folder is for the PM executable only.* **PMxx** *is a separate working folder for the instance of PM that is running for the configuration. For example, PM20 represents Signal Unit number 20 for the PM.*

Upgrading COMMANDfleet

Before upgrading an older version of COMMANDfleet, you should make a copy of the current **CSIS** directory and rename it, such as **CSIS_old**. This is to protect your COMMANDfleet data in case anything goes wrong during the upgrade.

1. Once you have made a copy of your **CSIS** directory, upgrade COMMANDfleet by following the steps detailed in the Initial Installation of COMMANDfleet.
2. Press the **Finish** button on the installer to launch the *Configuration Console*.
3. Verify and change any options for this installation. The old configuration files should be upgraded automatically. Some options may no longer be supported while others will be added with defaults.

Integration with COMMANDseries

Initial Integration with COMMANDseries

In order to open COMMANDfleet from the COMMANDconcrete or COMMANDaggregate applications, you must copy the COMMANDfleet folder to a location inside the CMDseries folder.

For COMMANDfleet to properly integrate with COMMANDseries, certain licenses must be set up (COMMANDseries Licensing and Modules) and the COMMANDseries initialization file must point to the COMMANDfleet installation. The initialization file **cmdserie.asn** is located in the Clients folder. The [logicals] section of this file must have a line pointing to the location of the COMMANDfleet installation, similar to the following:

```
[logicals]
Command_Fleet=C:\CMDseries\COMMANDfleet\Dispatchertools.exe
```

After a COMMANDseries Upgrade

If you are running COMMANDfleet, the following is required to maintain the current configuration after a COMMANDseries upgrade:

1. Copy the COMMANDfleet folder to a location inside the CMDseries folder.
2. Proceed with the normal COMMANDseries upgrade procedure.
3. After upgrading, move the copied COMMANDfleet folder back into the **CMDSERIE** folder and ensure the name of the folder is **COMMANDfleet**.

***Note**: Version 5 of COMMANDseries can only run up to COMMANDfleet 2.12.*

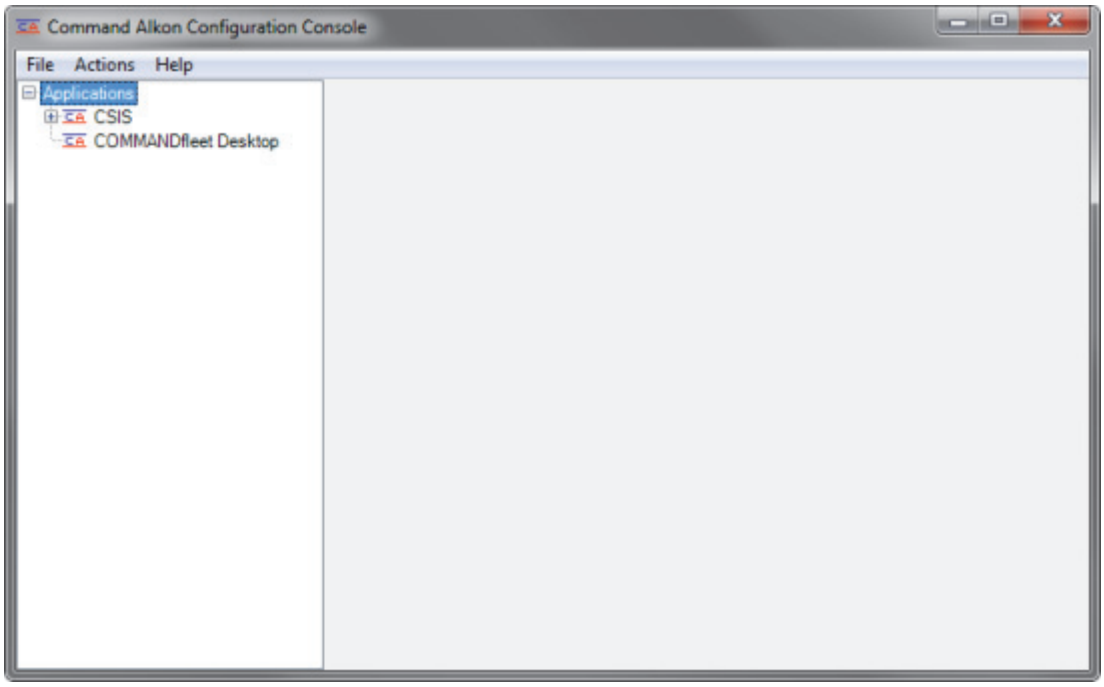
Configuring the Command Alkon Configuration Console

This console is a centralized configuration and management location for the CNClient, BLS, PM, and each of their Queues. The next few sections explain how to create, configure and start each of the COMMANDfleet components from within the Configuration Console.

Adding and Configuring the CSIS Components

Configuring the COMMANDfleet Desktop

Starting and/or Removing Components



An example of the Command Alkon Configuration Console.

Adding and Configuring the CSIS Components

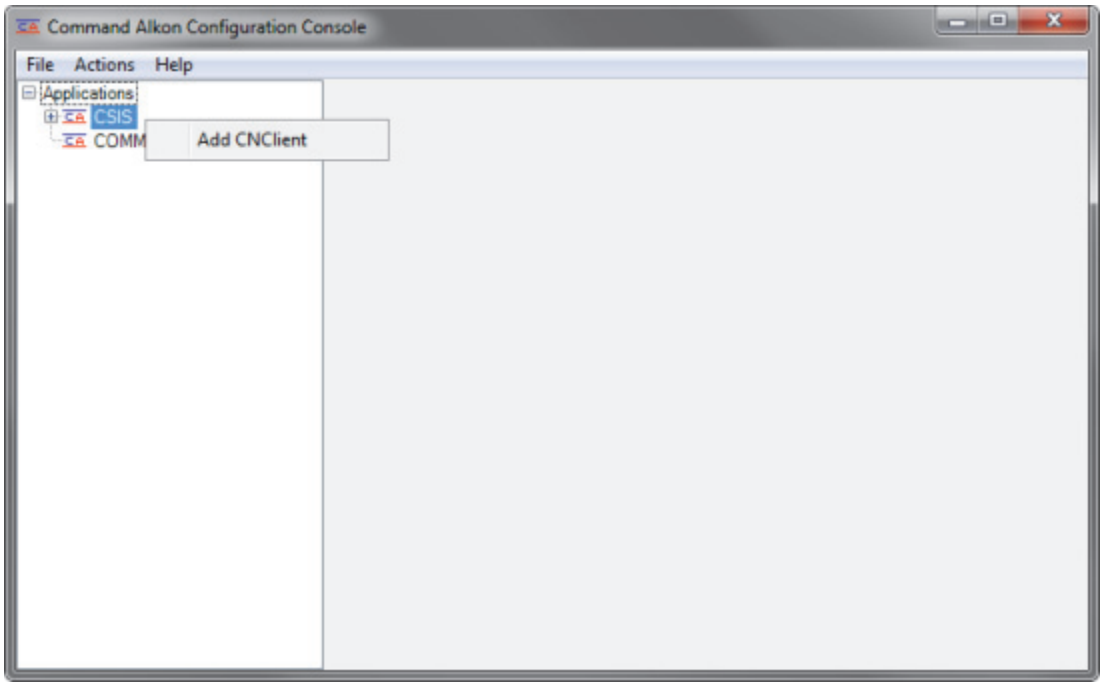
CNClient

Since COMMANDfleet receives messages from COMMANDseries via COMMANDnetwork, the first step is to connect to the COMMANDnetwork network.

***Note**: Adding and configuring the CNClient to the network uses or replaces one network user in the COMMANDseries license.*

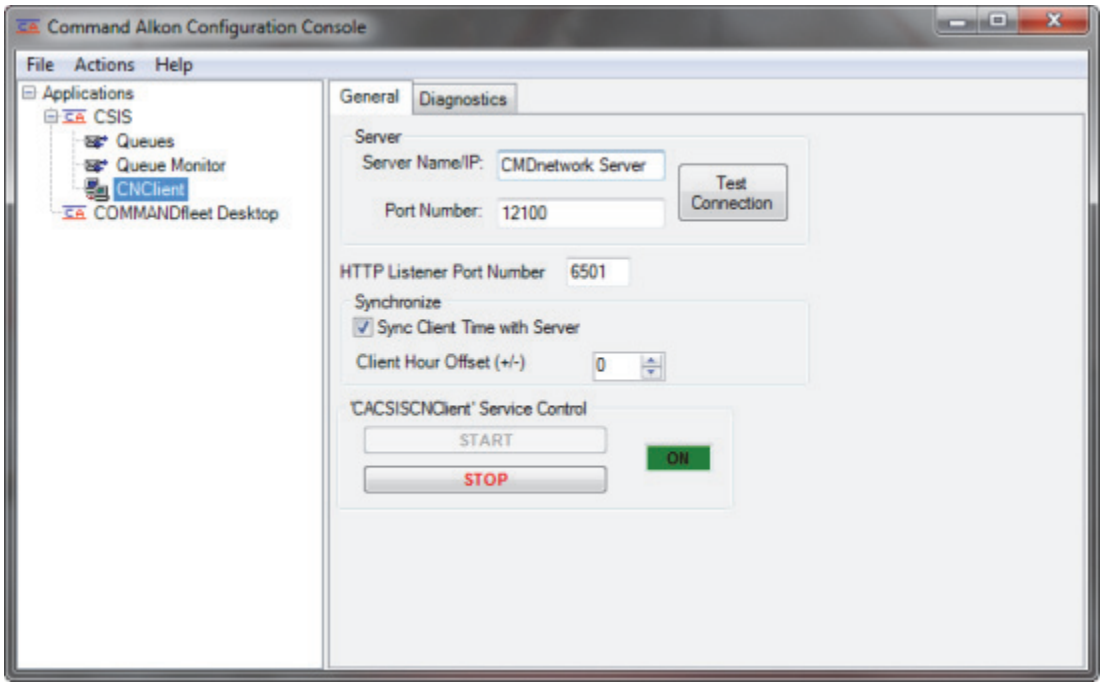
Once connected, follow these steps:

1. From the *Configuration Console*, select **CSIS**. Right-click on it and select **Add CNClient**.



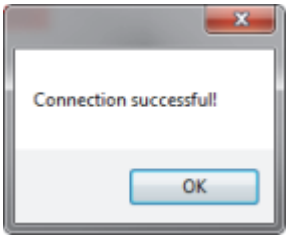
An example of how to add a new CNClient.

2. An instance of CNClient is added. This step registers the CNClient as a Windows Service named Command Network Client Service. Click on the newly created instance of CNClient to configure the COMMANDnetwork connection.
3. Complete the following information for the **General** tab:



An example of the General tab of the CNClient.

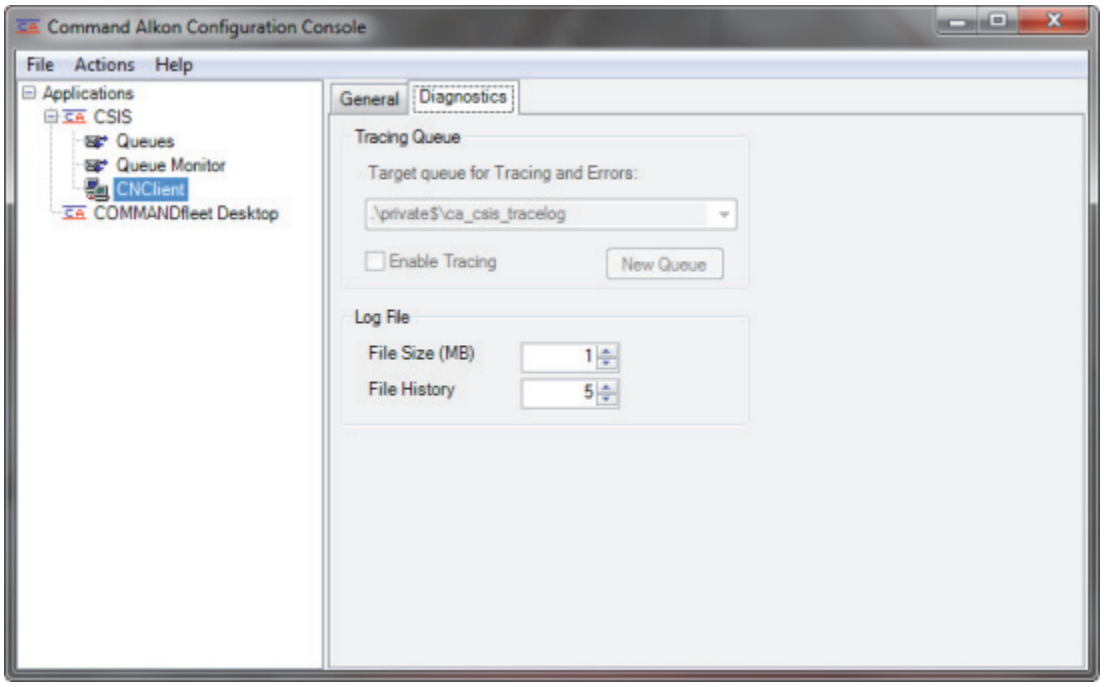
- **Server Name/IP** - Enter the computer name or IP address of the COMMANDnetwork server (the address can be found in the title bar of COMMANDnetwork).
- **Port Number** - Enter the **Listening Port number** for the COMMANDnetwork server (the default is 12100). This number can be found on the COMMANDnetwork Setup screen.
- **Test Connection** - Click this button to verify connectivity to the COMMANDnetwork server. If successful, the *Connection Successful* message appears. If not successful, verify the COMMANDnetwork server IP and Port, and the ability to PING the COMMANDnetwork server from CSIS.



This message will appear if the CNClient is able to communicate with the COMMANDnetwork Server successfully.

- **Sync Client Time with Server** - Select this checkbox if you want the CNClient to synchronize time with the COMMANDnetwork server. If time sync is accomplished in another way, leave this checkbox unchecked.
- **Client Hour Offset (+/-)** - If are syncing the client time with a COMMANDnetwork server in a different time zone, use this offset to adjust the client time accordingly.
- **CNClient Service Control** - These buttons let you **Start** and **Stop** the CNClient service.

4. The **Diagnostics** tab allows you to configure the size and number of the CNClient log files that are needed for diagnostics and troubleshooting.

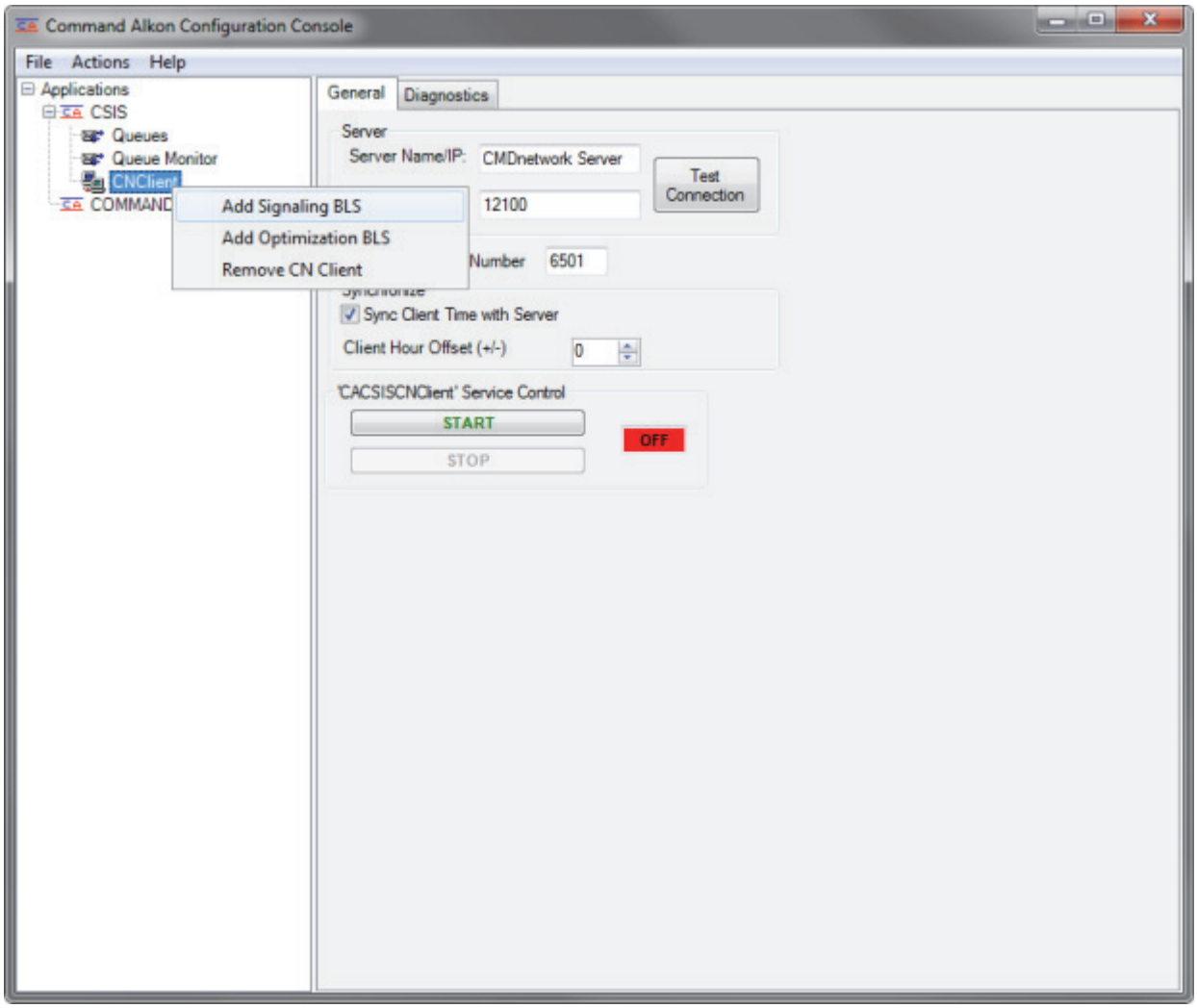


An example of the Diagnostics tab.

Adding and Configuring a Signaling BLS

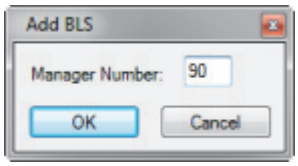
With the CNClient ready to pass messages between COMMANDfleet and COMMANDnetwork, we now need to configure the Business Logic Server. The BLS processes messages between COMMANDnetwork and other business interfaces. There are two different options (Signaling BLS or Optimization BLS) for creating the logic module and the application of COMMANDfleet will determine how you setup it up. It is important to note that you may only have 1 BLS instance per server. Unless Optimization is being implemented, you will need to configure a Signaling BLS.

1. From the Configuration Console, right click on **CNClient** and select **Add Signaling BLS**.



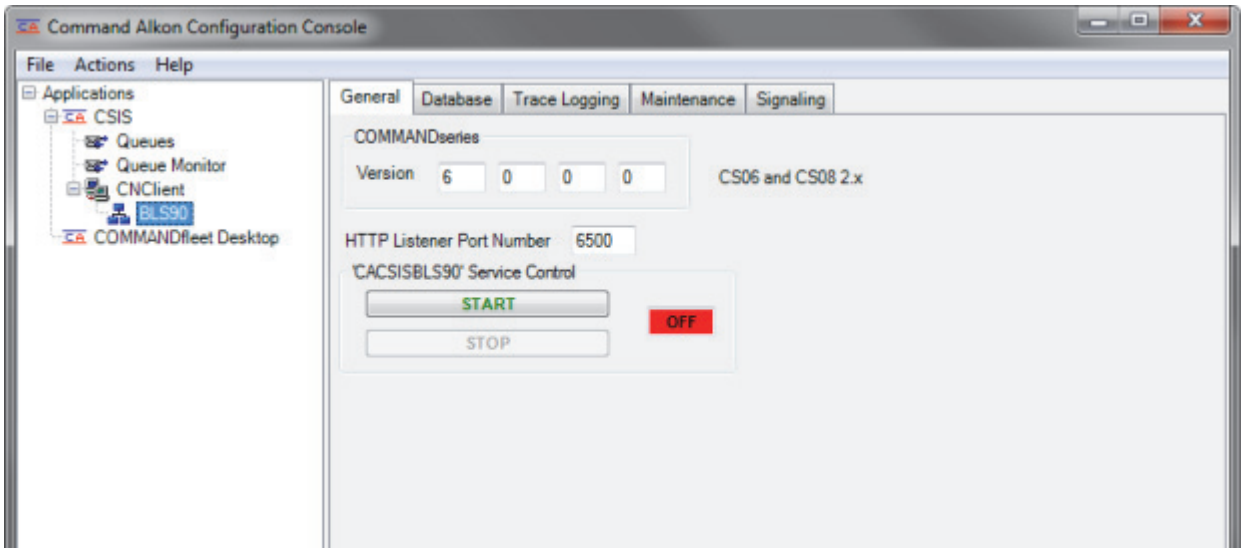
An example of how to add a signaling BLS.

2. The *Add BLS* dialog box appears. Enter the **Manager Number** from the Signaling Unit that you created in COMMANDseries Signaling Unit Configuration.



An example of the *Add BLS* dialog box, with a Manager Number of 90.

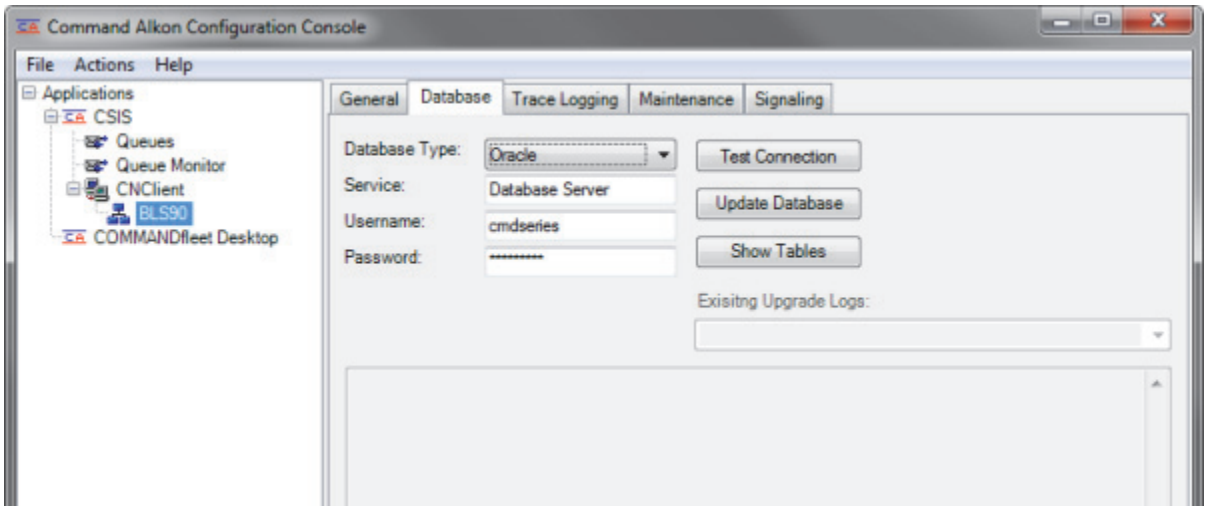
3. Click **OK**. A BLS instance is added and is registered as a Windows service called **CACSISBLSxxx**, where **xxx** is the Manager Number. For example, if the Manager Number entered is 90, that Windows Service is named CACSISBLS90.
4. If you have performed an upgrade and need to update the BLS, right click on **BLSxx** and select **Update BLS**.
5. While under the **General** tab, click on the BLS instance you just created and complete the following information:



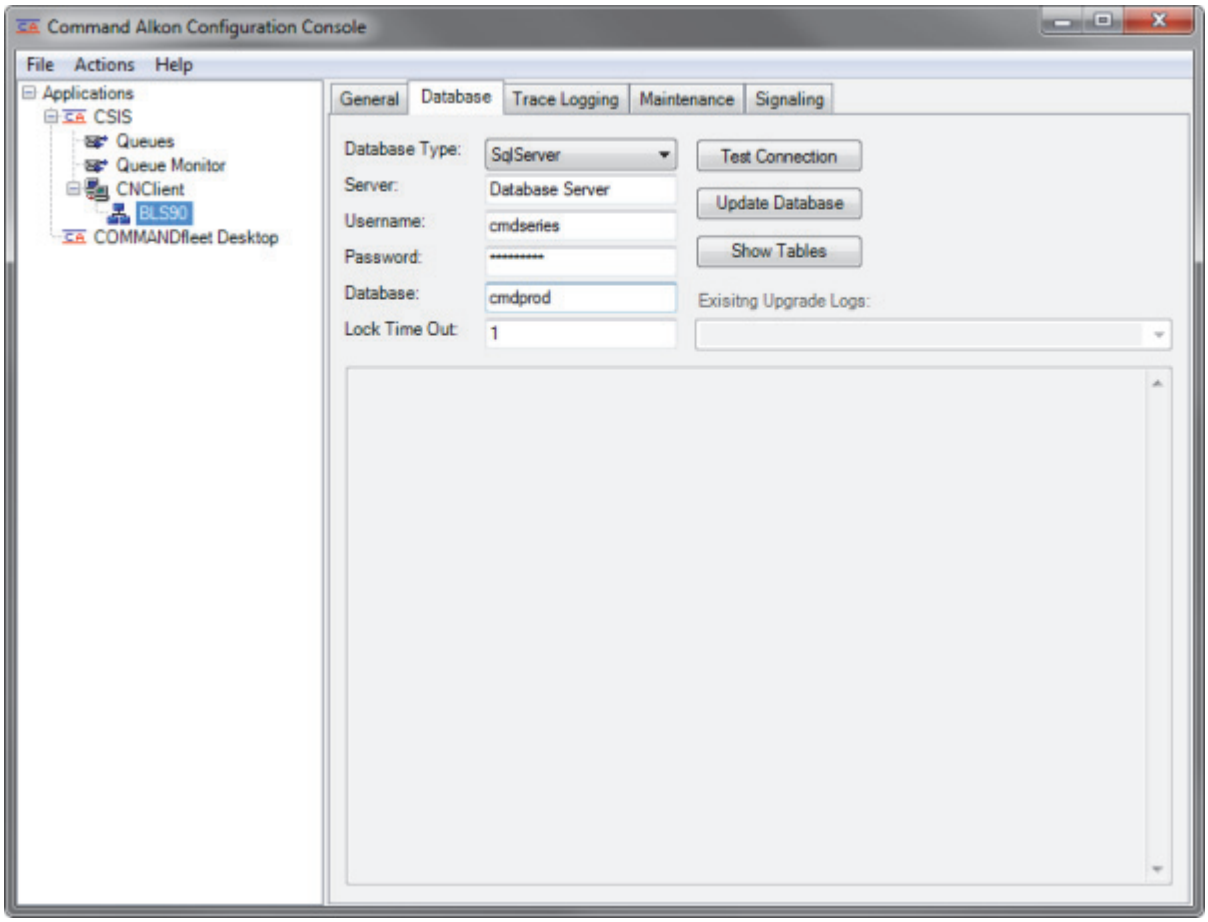
An example of the General tab of the BLS.

- **COMMANDseries Version** - Enter your COMMANDseries version number in this field. Note that the CS06 and CS08 2.x versions are considered **6.0.0.0** and that the CSPlus and CS08 3.x versions are considered **7.0.0.0**. Prior to CS06, the 4-place version, such as COMMANDseries version 5.57.9.19, was used for v5 COMMANDseries.
- **BLS Service Control** - These buttons let you **Start** and **Stop** the BLS service; however, ***it is strongly recommended that you do not use these buttons unless under the advisement of Command Alkon Personnel.***

6. Under the **Database** tab, complete the following information:

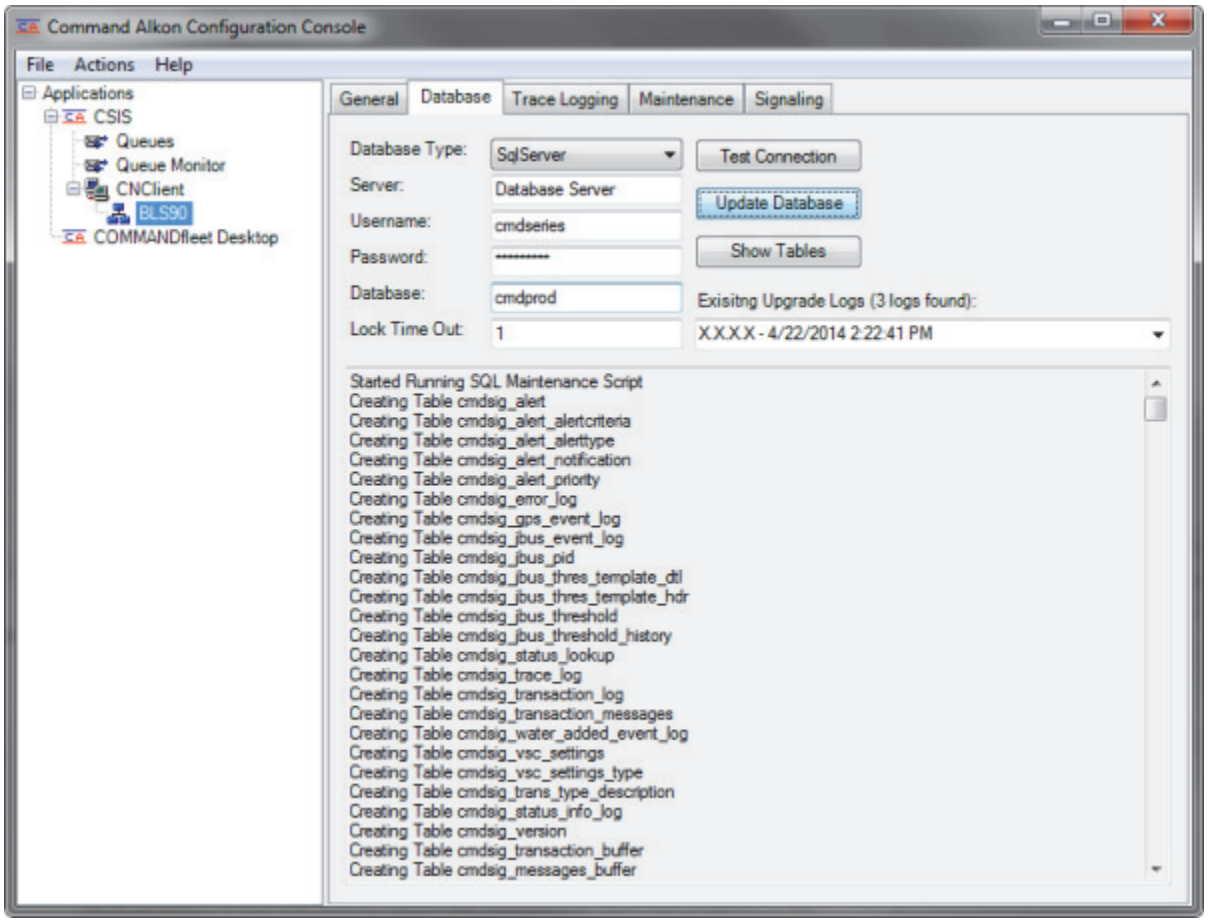


An example of the Database tab for a BLS using an Oracle Database Type



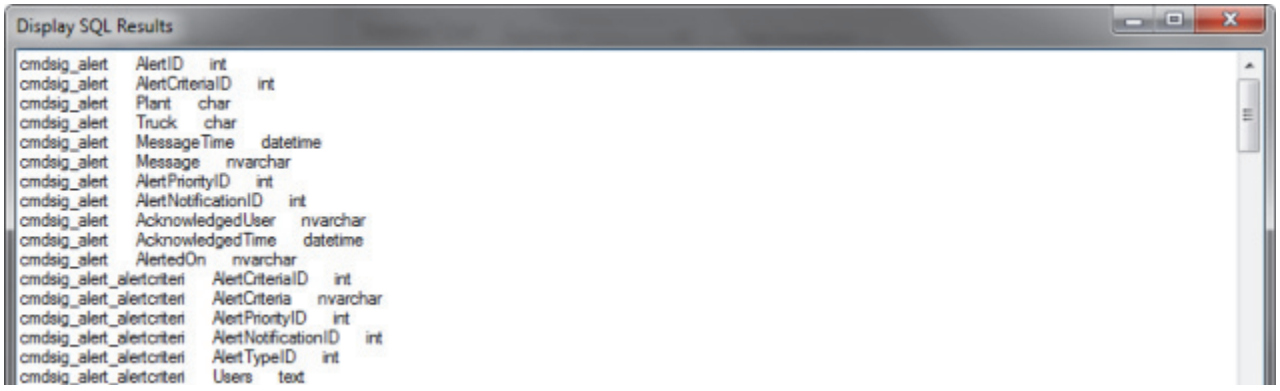
An example of the Database tab for a BLS using a SQL Server Database Type

- **Database Type** - Select the appropriate database from this drop-down list.
- **Server/Username/Password** - Enter your database connection information (if unknown, you can get these from the COMMANDseries ASN file).
- **Test Connection** - Click on this button to test your connection to the database engine. If successful, the *Connection Successful* dialog box appears.
- **Update Database** - Click on this button if the database needs updating (this may take up to an hour). A text box directly below the controls will show the progress of the update. When finished, a log file appears as shown below. If the database is current, a message appears stating *Database already has current schema*.



An example of using the Update Database button.

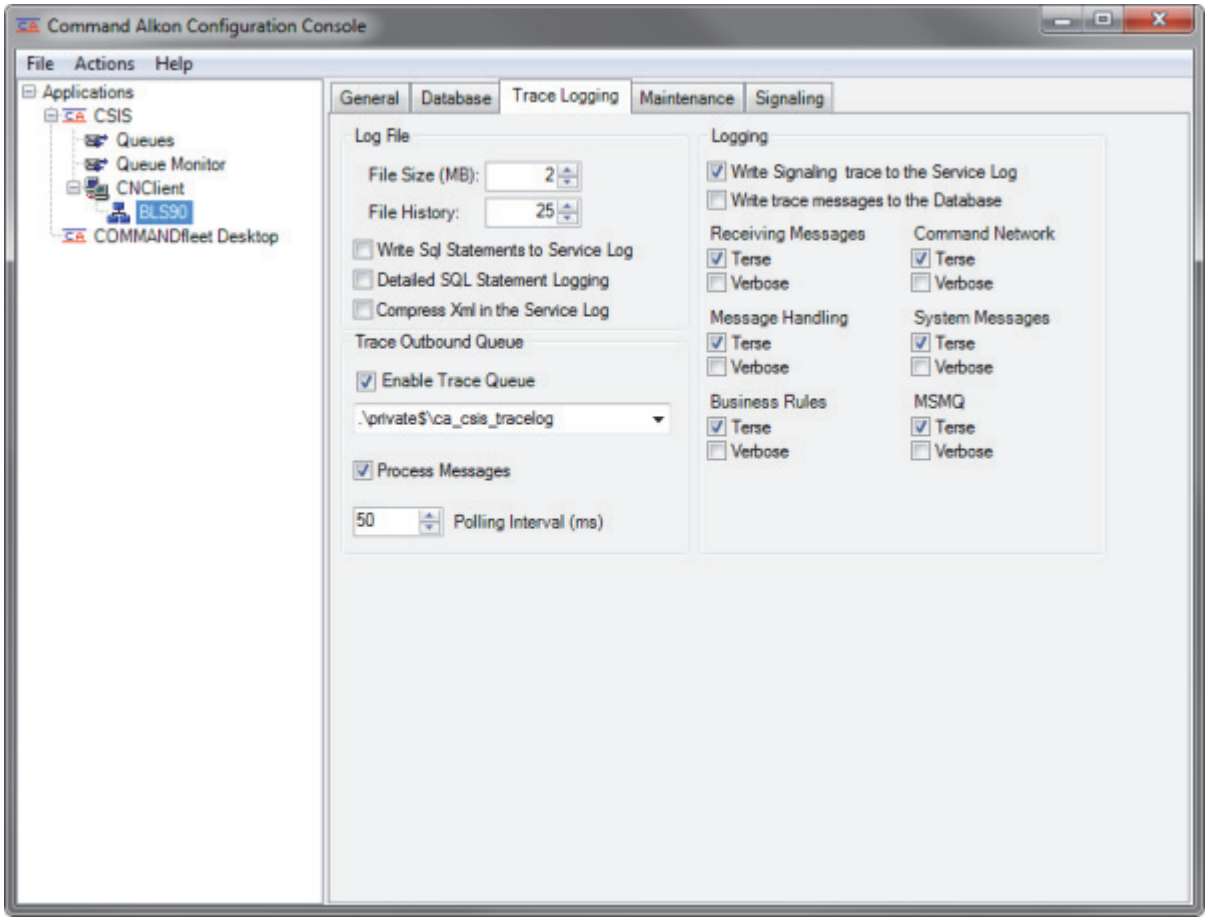
- **Show Tables** - Click on this button to open a SQL log which lists current tables and the database architecture.



An example of the *Display SQL Results* window that appears after using the Show Tables button.

- **Existing Upgrade Logs** - The drop-down field allows you to view previous upgrade logs. The logs are listed by COMMANDfleet version and the date of the update.

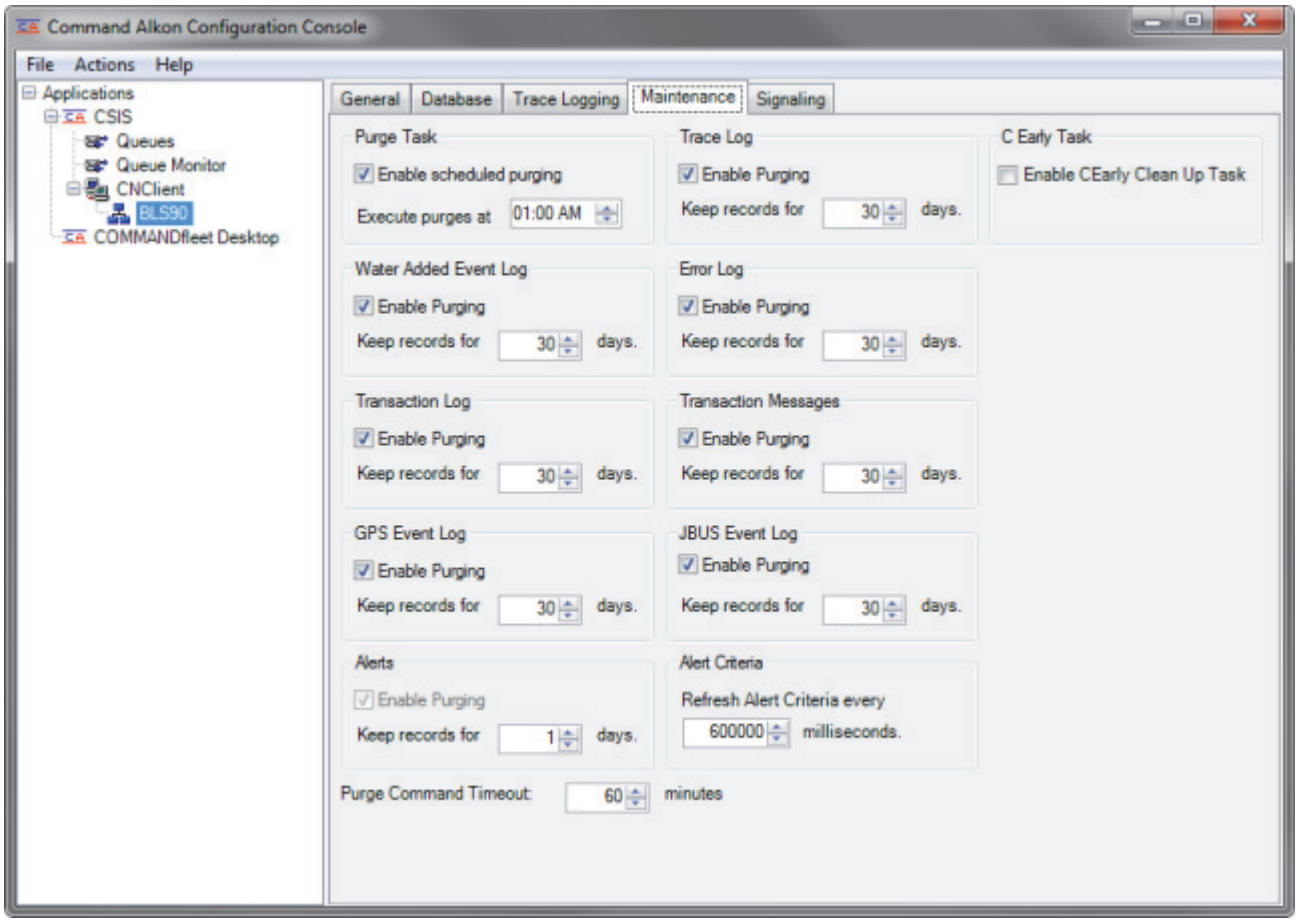
7. The **Trace Logging** tab allows for data to be taken for troubleshooting purposes. You may select **Terse** (short) or **Verbose** (long) depending on the level of detail you want to record. It is not necessary to select the checkboxes at this moment.



An example of the Trace Logging tab for the BLS.

- While under the **Trace Logging** tab, it is required that you have **Enable Trace Queue** and **Process Messages** selected. Optional selections include **Write Sql Statements to Service Log**, **Detailed SQL Statement Logging**, and **Compress Xml in the Service Log**.

8. Under the **Maintenance** tab, complete the following information:



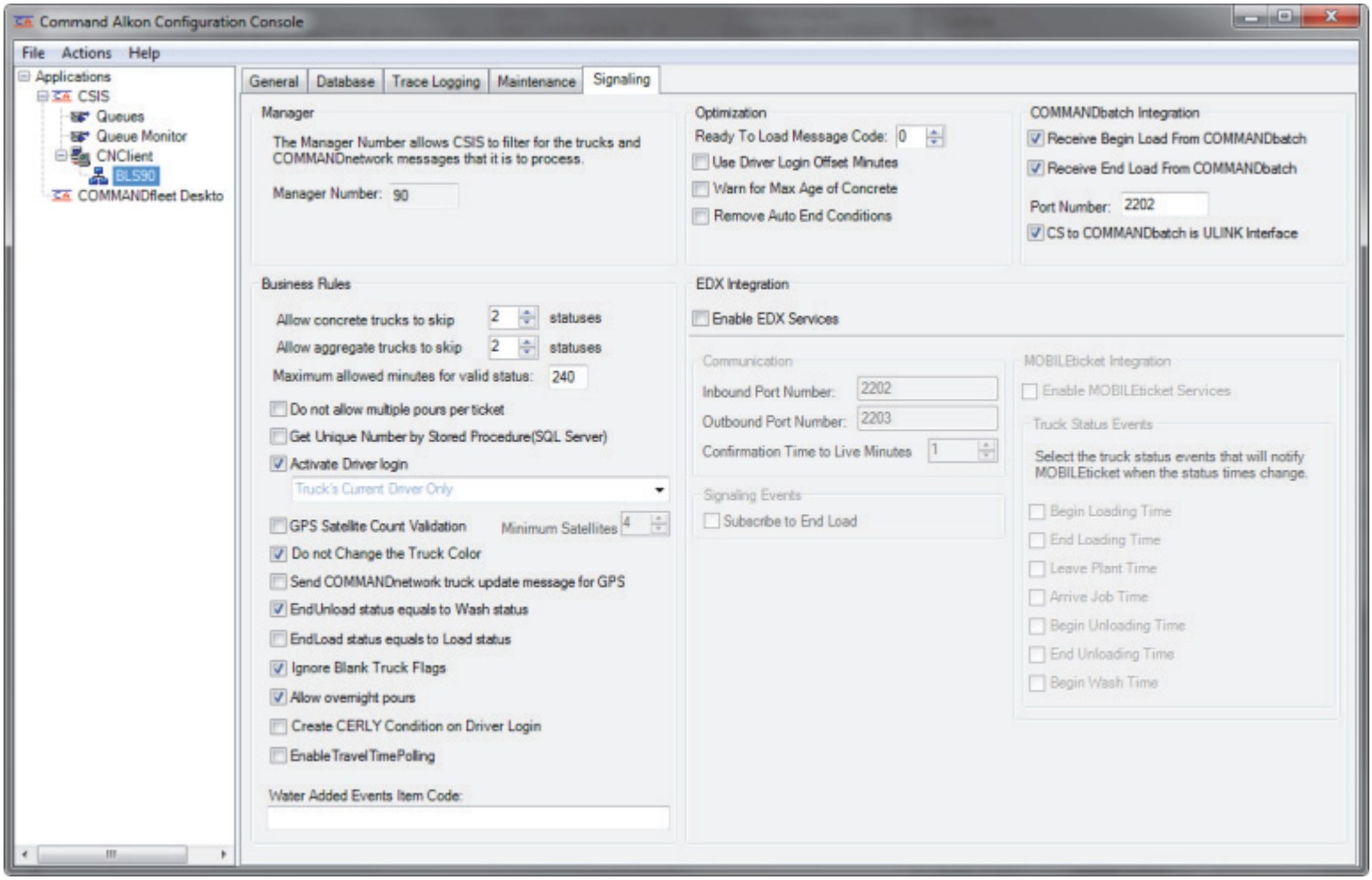
An example of enabled purging with a record retention of 30 days.

***Note**: Purging is highly recommended for optimal performance.*

- **Enable scheduled purging** - To purge data, select this checkbox. When selected, the remaining fields on this tab become available for use.
- **Execute purges at** - Select a time by clicking on the hour, minute, and AM/PM portion of the time and then either enter a time or click the up/down arrows (or use your keyboard up/down arrow keys).
- **Enable Purging** - Select one or more of the remaining checkboxes to allow the purging of the following logs:
  - Purge Task
  - Water Added Event Log
  - Transaction Log
  - GPS Event Log
  - Alerts
  - Trace Log
  - Error Log
  - Transaction Messages
  - JBUS Even Log

- **Keep records for x days** - This is the number of days to keep the alert messages. This will determine how long you will retain historical data and depends on the how you set it for each particular field.
- **Alert Criteria** - This is the refresh period (in milliseconds) for the BLS to get the latest criteria. The minimum value is 600000 (10 minutes) and the maximum value is 86400000 (which equals 1,440 minutes or 24 hours).
- **Purge Command Timeout** - This is the length of time that purging is allowed starting at the **Execute purges at** time.

9. Under the **Signaling** tab, complete the following:


Command Alkon Configuration Console
File Actions Help
Applications
CSIS
Queues
Queue Monitor
CNClient
BLS90
COMMANDfleet Deskto
General Database Trace Logging Maintenance Signaling
Manager
The Manager Number allows CSIS to filter for the trucks and COMMANDnetwork messages that it is to process.
Manager Number: 90
Optimization
Ready To Load Message Code: 0
Use Driver Login Offset Minutes
Warn for Max Age of Concrete
Remove Auto End Conditions
COMMANDbatch Integration
Receive Begin Load From COMMANDbatch
Receive End Load From COMMANDbatch
Port Number: 2202
CS to COMMANDbatch is ULINK Interface
Business Rules
Allow concrete trucks to skip 2 statuses
Allow aggregate trucks to skip 2 statuses
Maximum allowed minutes for valid status: 240
Do not allow multiple pours per ticket
Get Unique Number by Stored Procedure(SQL Server)
Activate Driver login
Truck's Current Driver Only
GPS Satellite Count Validation
Minimum Satellites 4
Do not Change the Truck Color
Send COMMANDnetwork truck update message for GPS
EndUnload status equals to Wash status
EndLoad status equals to Load status
Ignore Blank Truck Flags
Allow overnight pours
Create CERLY Condition on Driver Login
EnableTravelTimePolling
Water Added Events Item Code:
EDX Integration
Enable EDX Services
Communication
Inbound Port Number: 2202
Outbound Port Number: 2203
Confirmation Time to Live Minutes 1
Signaling Events
Subscribe to End Load
MOBILEticket Integration
Enable MOBILEticket Services
Truck Status Events
Select the truck status events that will notify MOBILEticket when the status times change.
Begin Loading Time
End Loading Time
Leave Plant Time
Arrive Job Time
Begin Unloading Time
End Unloading Time
Begin Wash Time

BLS: Signaling Tab

Note**: For more information regarding the Optimization, COMMANDbatch, EDX and MOBILEconnect Integration sections, please refer to their respective section of the appendix.* ***Do not use these sections unless it has been implemented as part of your current business process.

- **Manager Number** - This refers to the Manager Number for the Signaling Unit and defaults from the BLS setup. If this number needs to be changed, the BLS and all of its PM children must be deleted and added again.

Business Rules

- **Allow concrete trucks to skip x statuses** - Specify a number of statuses that can be skipped by your concrete trucks. It defaults to 1 but it is recommended to change it to 2 to allow statuses that may be skipped due to truck hardware problems.
- **Allow aggregate trucks to skip x statuses** - Specify a number of statuses that can be skipped by your aggregate trucks.
- **Maximum allowed minutes for valid status** - The amount of time (in minutes) that valid statuses are processed from the time the truck is ticketed. This defaults to 240 but it is recommended to increase that value to accommodate pre-ticketing.
- **Do not allow multiple pours per ticket** - If this checkbox is left unchecked, multiple *Wash* and *To Plant* time stamps are allowed to capture the total *On Job* time.
- **Get Unique Number by Stored Procedure (SQL Server)** - This option is used to determine whether the unique employee time record number comes from a stored procedure or comes from the **NUNQ** table. COMMANDseries version 5.57.7.11 and higher will use the stored procedure option regardless of the state of this setting. Prior versions can optionally use the store procedure if available. This option only applies to SQLServer. Oracle will always use the **NUNQ** table lookup method.

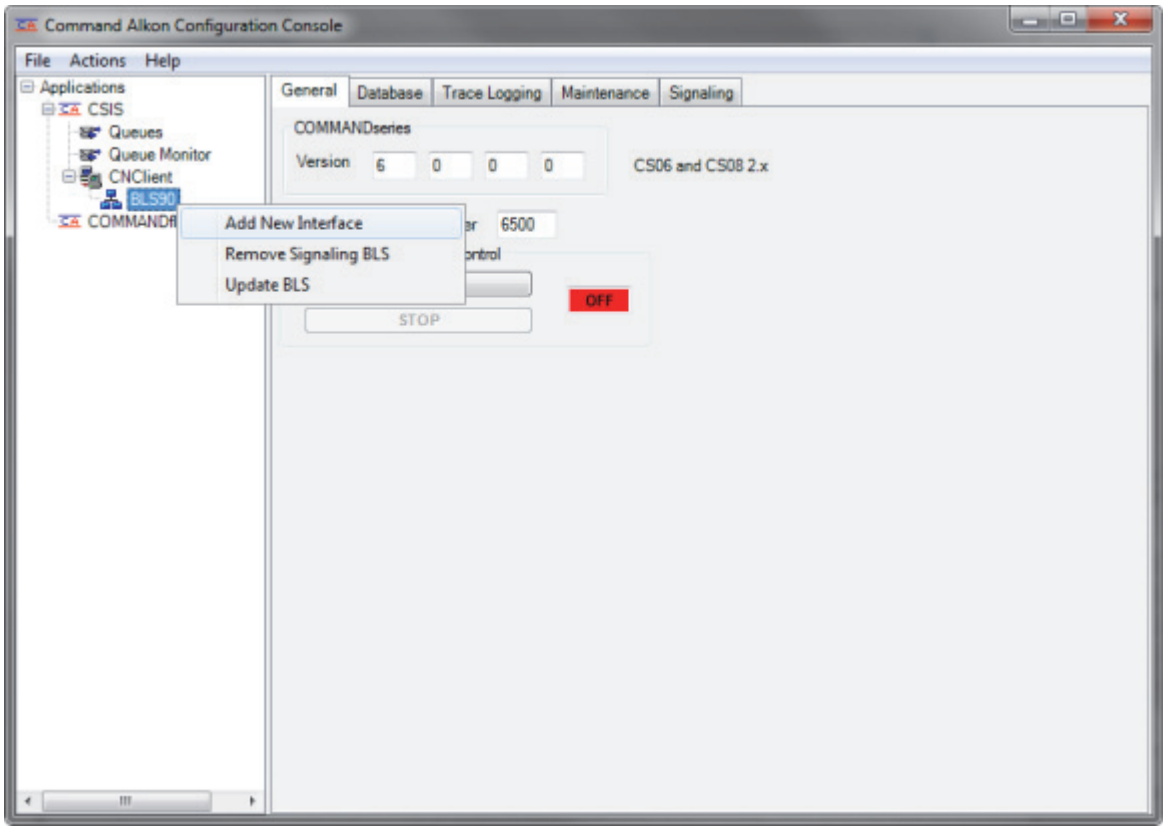
  ***Note**: If you are using COMMANDfleet 2.16 or higher, Oracle and SQL 2012 will now use sequencing instead of the **NUNQ** table.*
- **Activate Driver Login** - This field controls the source of the current driver for a truck entering into service. If this checkbox is not selected, the current driver of the truck is populated by the assigned driver within the **TRUC** record for the truck. If this checkbox is selected, the following options become available:
  - **Truck's Current Driver Only** - The current driver of a truck is pulled from the driver login message that is sent from the signaling unit within the truck.
  - **Truck's Current and Assigned Driver** - When the driver login updates the current driver, that driver is no longer overridden with the assigned driver.
- **GPS Satellite Count Validation** - Satellite information sent from a VSC signaling unit includes the number of satellites on which the GPS location was triangulated. Three satellites are required to pinpoint a latitude and longitude. In some cases, having only three satellites can lead to occasional erroneous positioning. Having four or more locked satellites usually provides a more accurate positioning of the vehicle.
  - **Minimum Satellites** - This allows you to configure the minimum number of satellites that can be used to obtain an accurate GPS positioning for the vehicle.
- **Do not Change the Truck Color** - This may override Condition/Task codes in COMMANDseries.
- **Send COMMANDnetwork truck update message for GPS** - This updates the truck coordinates through a series of COMMANDnetwork messages so that it will display on the tracking screen.
- **EndUnload status equals to Wash status** - Trimble signaling units send an EndUnload status; if this flag is selected, the end unload time will be used as the Wash time.

- **EndLoad status equals to Load Status** - This is used when the BeginLoad status is missing or invalid.
- **Ignore Blank Truck Flags** - This will ignore blank truck flags.
- **Allow Overnight Pours** - This allows dispatch to continue deliveries without interruption past midnight and allows billing on the day the pour started instead of the next business day.
- **Water Added Events Item Code** - This field identifies the COMMANDseries item that is to be used to record water added events for billing purposes.

Adding a COMMANDsignal PM

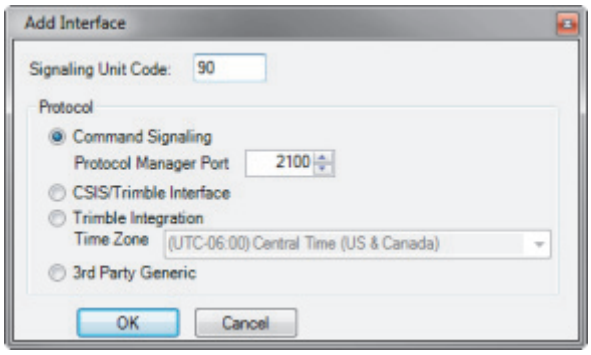
In this section, the Protocol Manager (PM) will be created if you use COMMANDsignal. Each BLS must have its own PM to manage traffic.

1. From the *Configuration Console*, right-click on the BLS entry and select **Add New Interface**.



An example of how to add a new interface to a BLS.

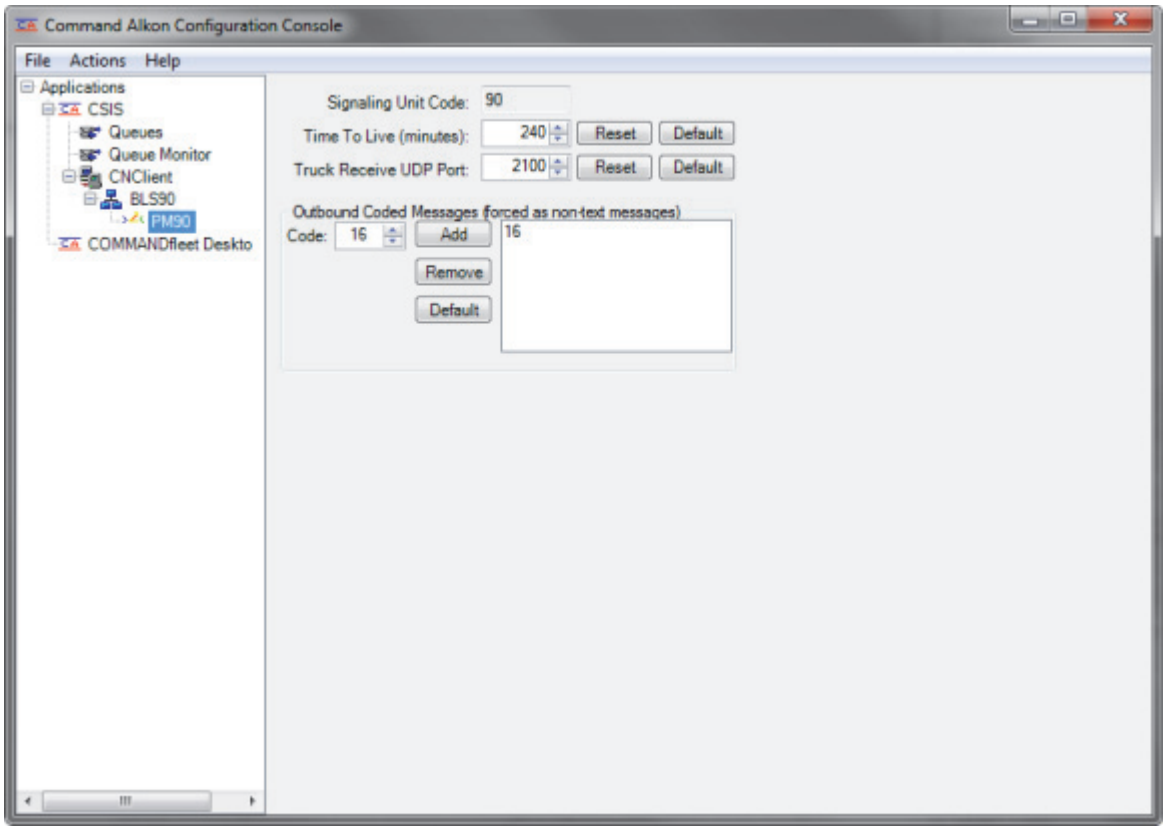
2. The *Add Interface* dialog box appears. Enter the **Signaling Unit Code** and select the relevant **Protocol**.



An example of the *Add Interface* dialog box.

- **Command Signaling** - Select this option if you are using both COMMANDseries and COMMANDsignal. If not, see the section titled Adding a New Interface for a Third Party Signaling Vendor.
  - **Protocol Manager Port** - When **Command Signaling** is selected, you can specify which UDP port the PM binds (listens) to when starting up. By default, the PM binds to port 2100 to listen to incoming traffic from trucks. Now you can run two instances of the PM on the same host, each bound to a different UDP port. For example, you can run two PMs (one for Concrete and one for Aggregate) on the same host with one BLS. The port value entered in this field is stored in the Windows Registry.

3. Click OK and the PM entry will appear below the BLS.
4. Click on the new PM entry and complete the following information:



An example of the PM settings including a Code 16 (GPS Poll).

- **Signaling Unit Code** - This is the code you entered on the *Add Interface* form. It cannot be changed once a PM is created. If the signaling unit code needs to be changed, the PM must be deleted and then added again.
- **Time To Live** - This is the time (in minutes) that an inbound message sent from the PM will exist on the PM_TO_BLS queue before being discarded to the Transactional dead-letter messages queue. Once discarded, these messages will never be processed by the BLS or found within the Fleet desktop application. *These messages must be checked and purged regularly.*
- **Truck Receive UDP Port** - This is the UDP/IP port that the PM uses to receive messages from VSC signaling units.
- **Outbound Coded Messages (forced as non-text messages)** - If a message code is added to this text box, then the outbound message for the code will always be sent as a non-text message (found in the outbound tab of the signaling unit), even if message text exists for the code. This option is frequently used for code 16 (GPS Poll).

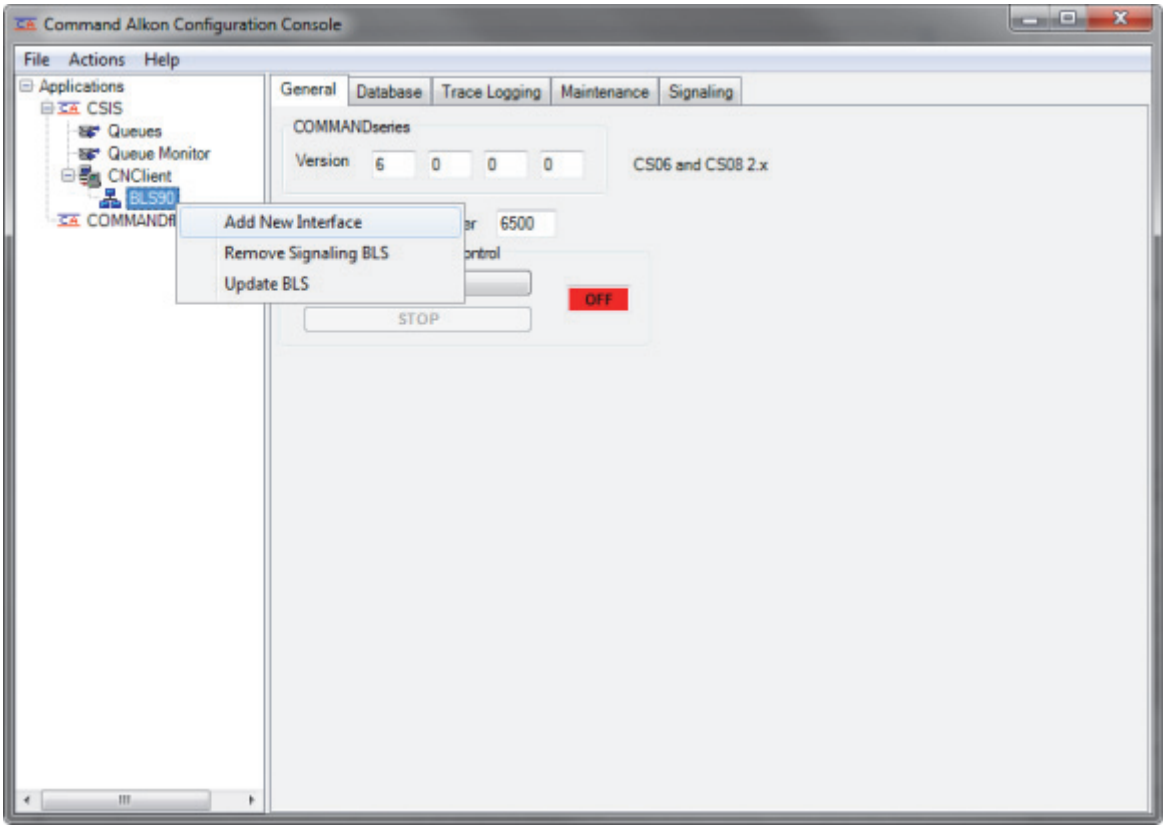
This concludes adding a PM to the *Configuration Console*. You may refer to The CSIS Protocol Manager section for information on configuring and using the PM.

Adding a New Interface for a Third Party Signaling Vendor

This section covers information needed to add an interface for a 3rd party signaling vendor.

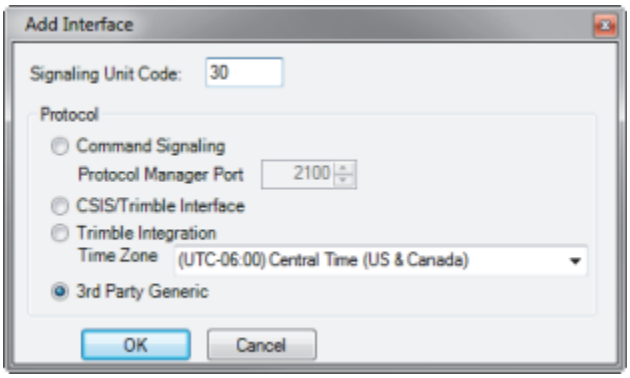
***Note**: If you are using a COMMANDsignal PM, you do not need to follow this step. Proceed to the next section.*

1. From the *Configuration Console*, right-click on the BLS entry and select **Add New Interface**.



An example of how to add a new interface to a BLS.

2. The *Add Interface* dialog box appears. Enter the **Signaling Unit No** and select the relevant **Protocol**.

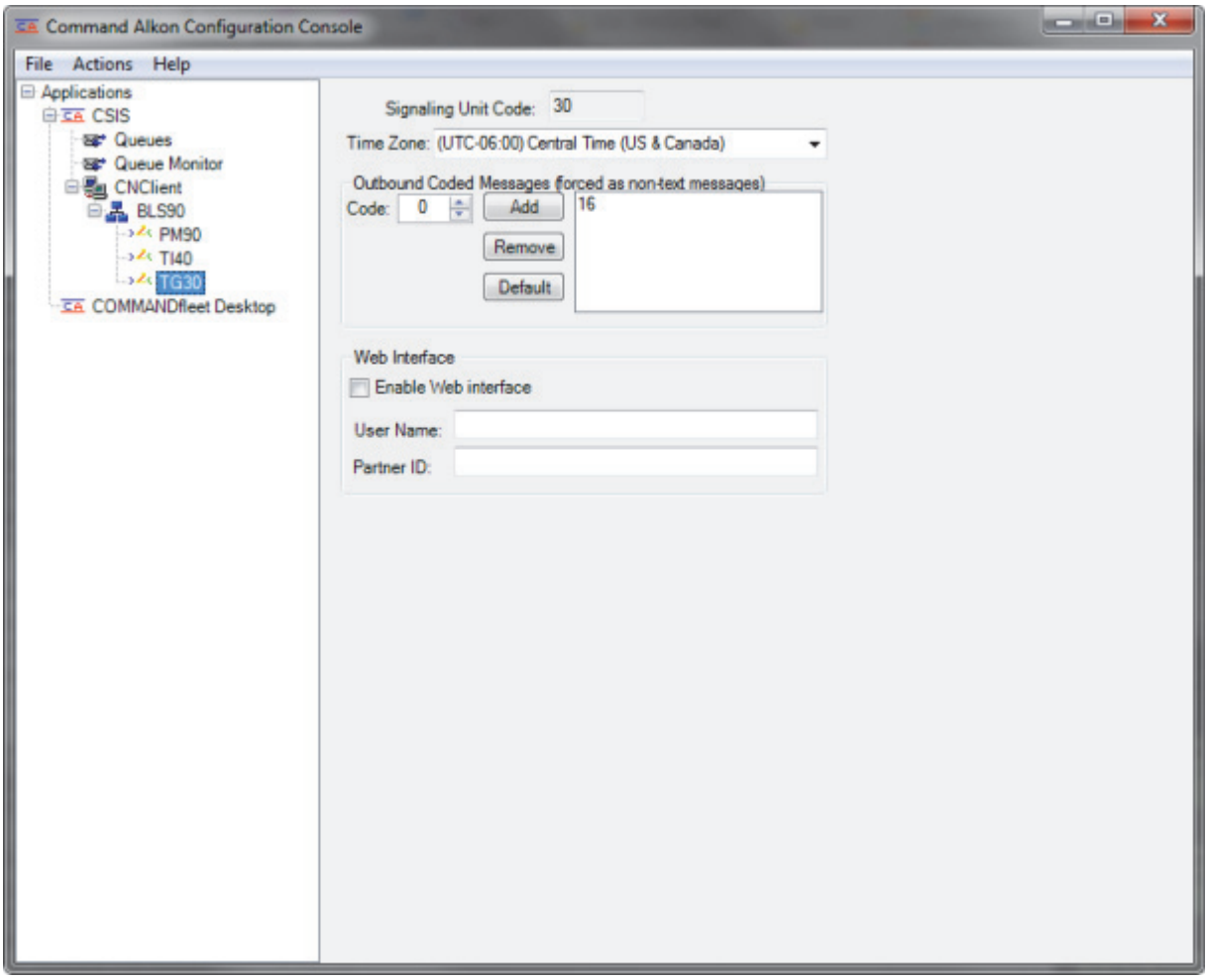


An example of the *Add Interface* dialog box.

- **CSIS/Trimble Interface** and **Trimble Integration**- Select one of these options for Trimble integration a protocol. You will also need to specify your **Time Zone**.

- **3rd Party Signaling** - Select this option if using a 3rd party generic XML interface with a signaling vendor.

3. Click OK and the new interface entry will appear below the BLS.
4. Click on the new interface entry and complete the following information:



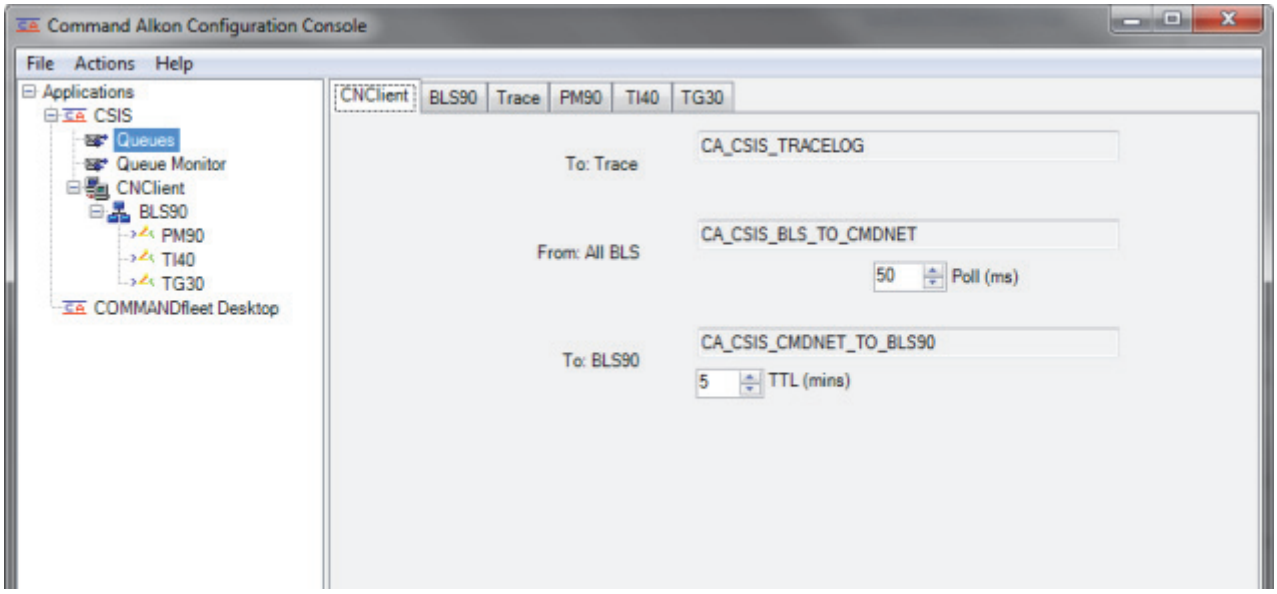
PM Settings

- **Signaling Unit Code** - This is the code you entered on the *Add Interface* form. It cannot be changed once a PM is created. If the signaling unit code needs to be changed, the PM must be deleted and then added again.
- **Time Zone** - This is the time zone where the truck fleet is located. It defaults as the time zone of the server but can be changed to match the location of the trucks.
- **Outbound Coded Messages (forced as non-text messages)** - If a message code is added to this text box, then the outbound message for the code will always be sent as a non-text message (found in the outbound tab of the signaling unit), even if message text exists for the code. This option is frequently used for code 16 (GPS Poll).
- **Web Interface** - This allows you to properly configure and deploy the EDS Service and Plugins and EDX Plugins\CSIS when: creating new BLS/EDX Interface configuration, changing the configuration or upgrading the Fleet software.

This concludes adding a 3rd party interface to the *Configuration Console*.

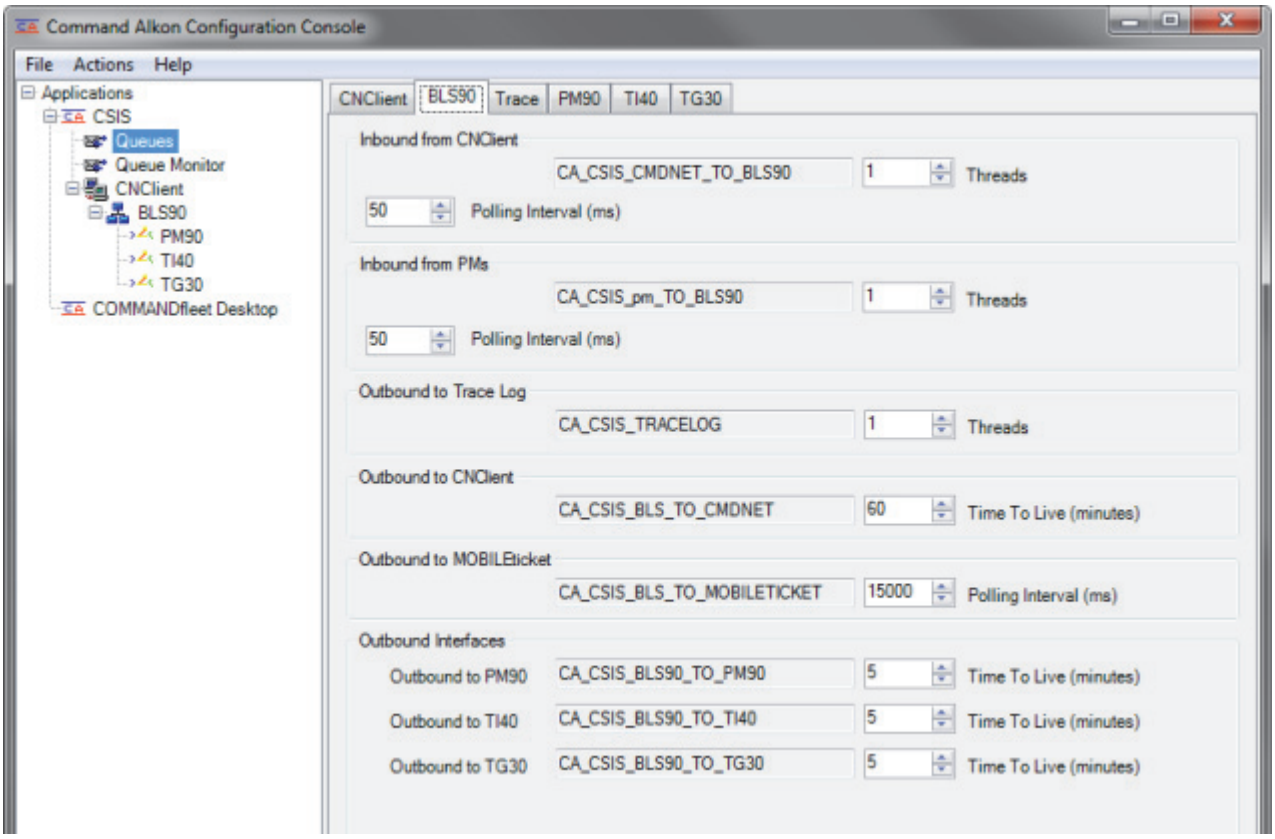
Queues Setup

1. On the left pane of the *Configuration Console*, click Queues.
2. The **CNClient** tab identifies the primary COMMANDnetwork message queues.



An example of the CNClient tab for Queues.

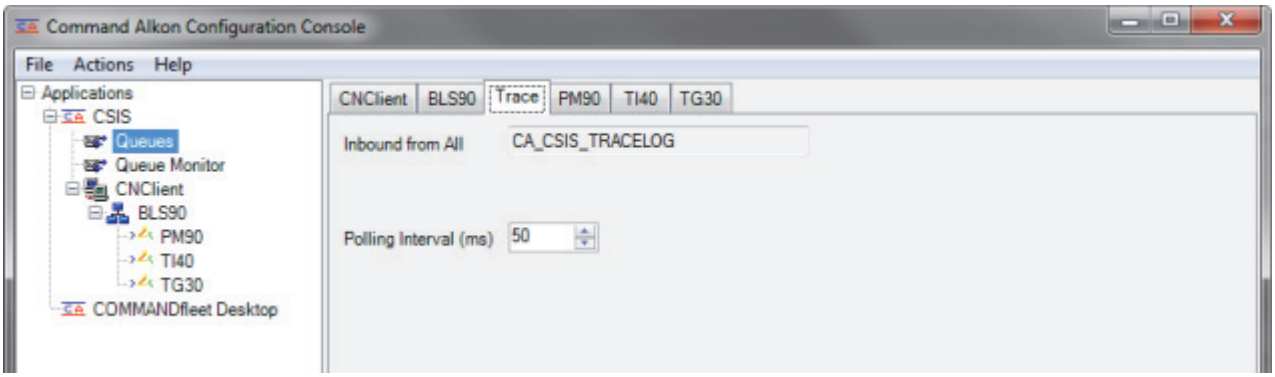
3. The **BLSxxx** tab shows queues for a specific BLS and depends on the Manager Number. For instance, if the Manager Number is 90, the queue name (and tab name) is **BLS90**. Under this tab, you can specify up to three different variables:



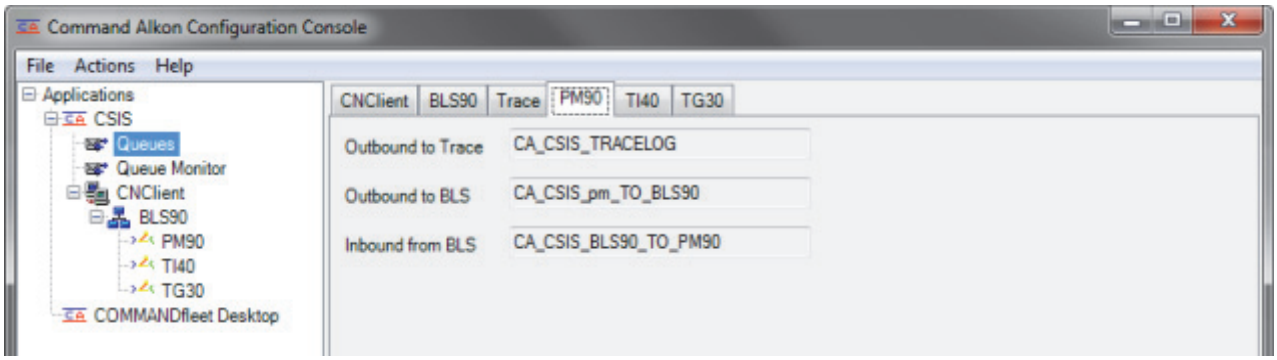
In this example, the Manager Number for the BLS is 90, so the tab is named BLS90.

- **Threads** - This is the number of threads, or message channels, you want to use for the queue. More threads generally means faster processing, but it also uses more bandwidth.
- **Time to live** - This is the number of minutes a message will remain in the queue before it expires.
- **Polling Interval** - This is the interval between checks for new messages.

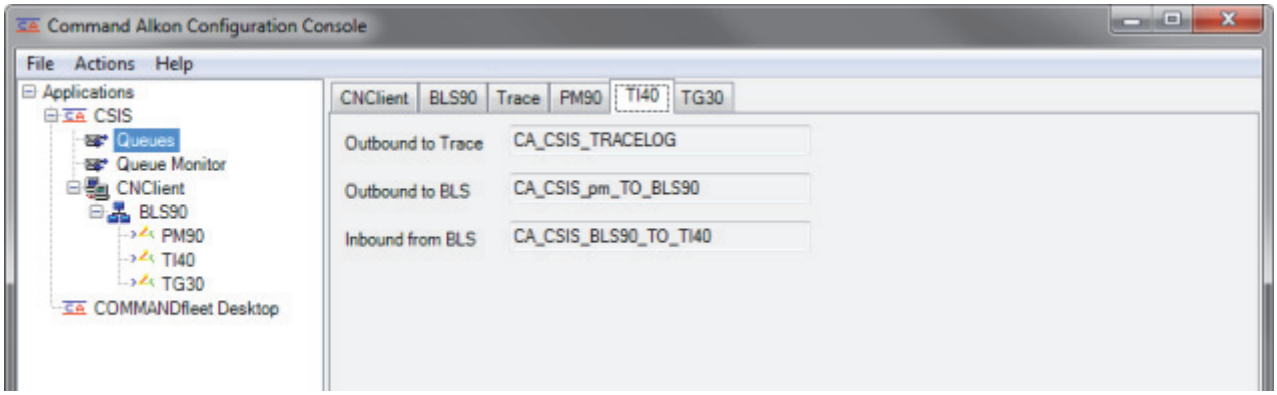
4. The **Trace**, **PMxx**, **TIxx**, and **TGxx** tabs show information relating to the MSMQ's and are generally not adjusted.



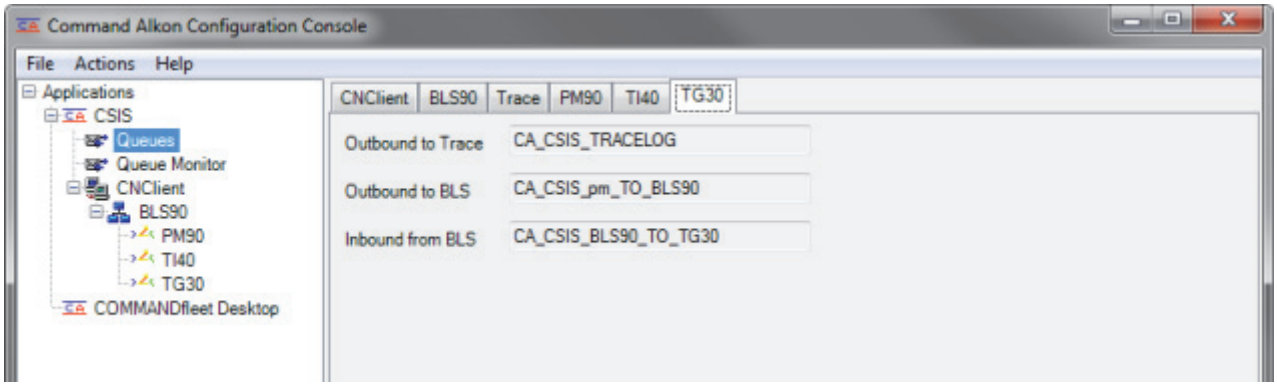
An example of the Trace tab for Queues.



In this example, the Signaling Unit Code for the PM is 90, so the tab is named PM90.

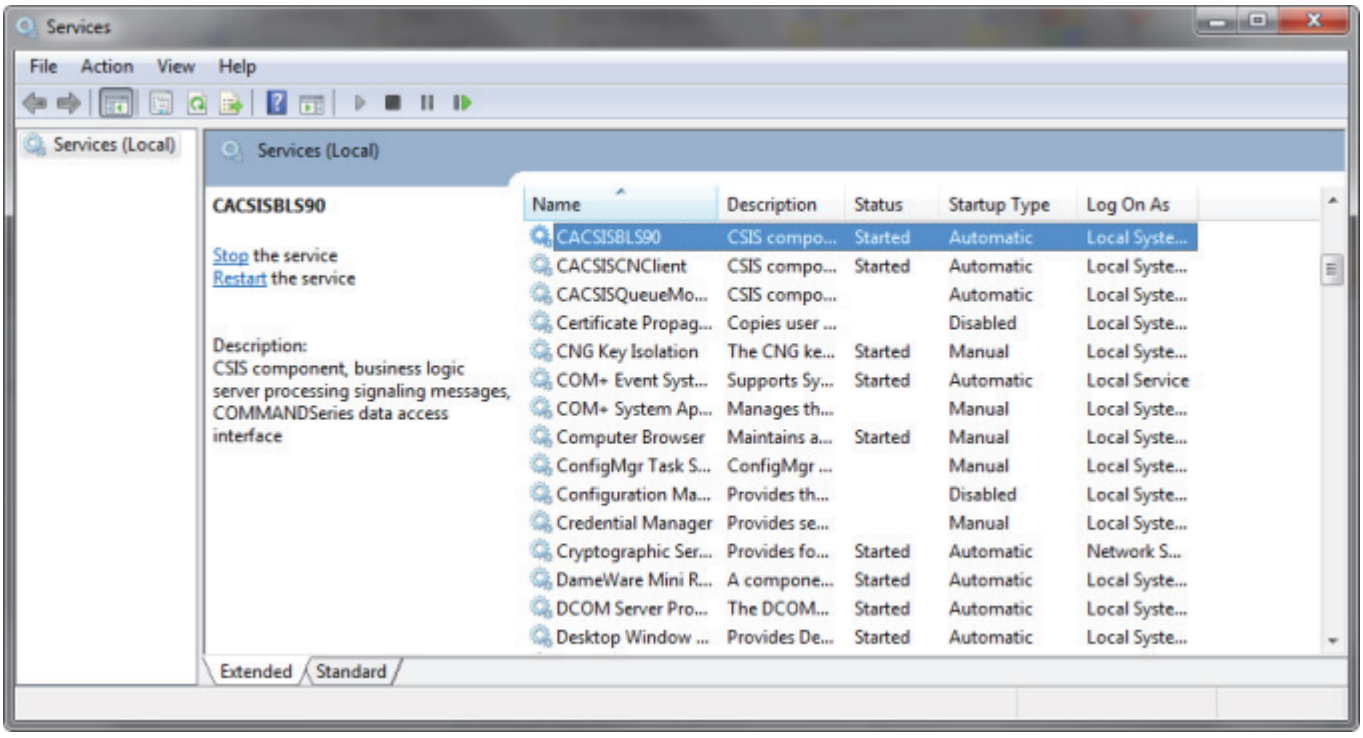


In this example, the Signaling Unit Code for the Trimble Integration is 40, so the tab is named TI40.



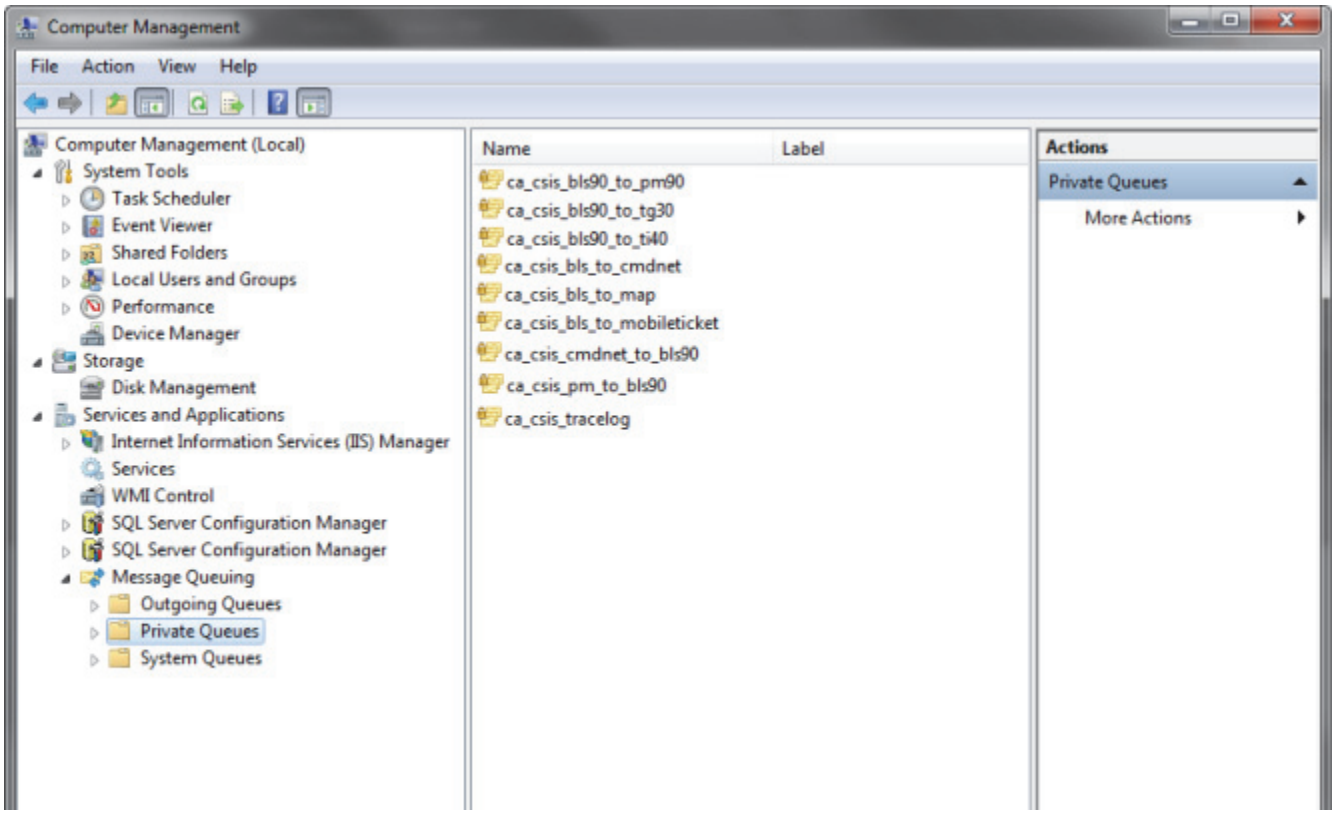
In this example, the Signaling Unit Code for the Third Party Generic is 30, so the tab is named TG30.

5. Now, from the Windows Control Panel go to {*Administrator Tools* > *Services*}. You should see two services named **CACSISBLSxx** and **CACSISCNClient**.


Services
File Action View Help
Services (Local)
Services (Local)
CACSISBLS90
Stop the service
Restart the service
Description:
CSIS component, business logic server processing signaling messages, COMMANDSeries data access interface
Name
Description
Status
Startup Type
Log On As
CACSISBLS90 CSIS compo... Started Automatic Local Syste...
CACSISCNClient CSIS compo... Started Automatic Local Syste...
CACSISQueueMo... CSIS compo... Automatic Local Syste...
Certificate Propag... Copies user ... Disabled Local Syste...
CNG Key Isolation The CNG ke... Started Manual Local Syste...
COM+ Event Syst... Supports Sy... Started Automatic Local Service
COM+ System Ap... Manages th... Manual Local Syste...
Computer Browser Maintains a... Started Manual Local Syste...
ConfigMgr Task S... ConfigMgr ... Manual Local Syste...
Configuration Ma... Provides th... Disabled Local Syste...
Credential Manager Provides se... Manual Local Syste...
Cryptographic Ser... Provides fo... Started Automatic Network S...
DameWare Mini R... A compone... Started Automatic Local Syste...
DCOM Server Pro... The DCOM... Started Automatic Local Syste...
Desktop Window ... Provides De... Started Automatic Local Syste...
Extended
Standard

Microsoft Services (Local)

6. Set both services to **Automatic** in the Startup Type column (change from **Manual** to **Automatic** by right-clicking and selecting **Properties**).
7. The Microsoft Management Queues reside on the CSIS Server. Go to {*Control Panel* > *Administrative Tools* > *Computer Management*}. Once the *Computer Management* window is open, navigate to {*Services and Applications* > *Message Queuing* > *Private Queues*}. It should look similar to the following:

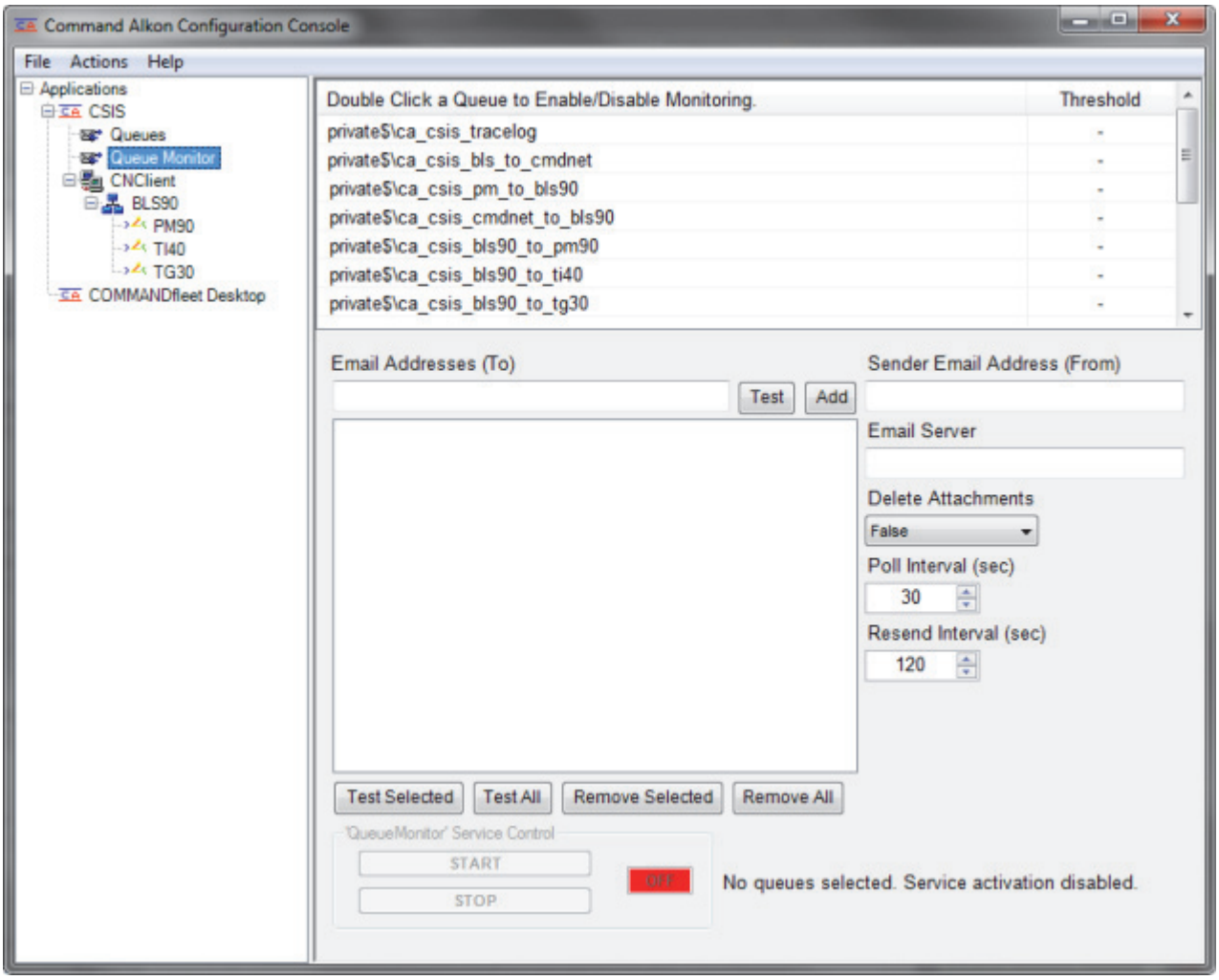


Microsoft Computer Management

Queue Monitor

The Queue Monitor, located in the left pane of the *Configuration Console*, is used for troubleshooting and must be started to run successfully. Queues that are monitored have a **Threshold** of messages waiting to be delivered. If the threshold is exceeded, an alert e-mail is sent to the designated e-mail addresses. On this screen you can:

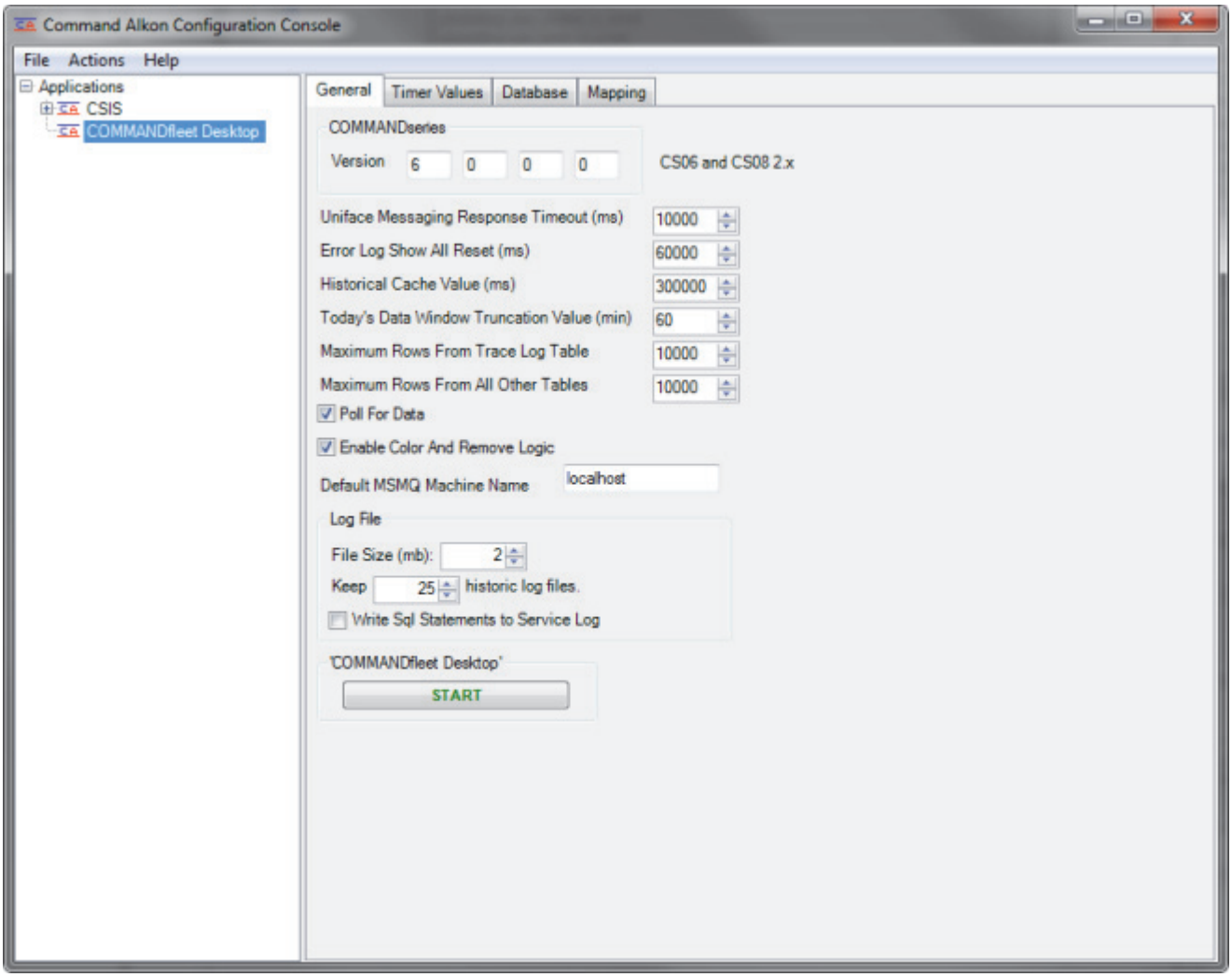
- Start/Stop the Queue Monitor.
- Establish the threshold for each queue.
- Enter and test the alert e-mail addresses.
- The system will copy the messages currently in the queue into a file that will be attached to the alert e-mail. If you want the file deleted after the e-mail is sent, set Delete Attachments to True.
- Establish a Poll Interval which is how frequently the system will check validate the threshold levels.
- Enter a Resend Interval which is how often an e-mail address will be retried.



An example of the Queue Monitor.

Configuring the COMMANDfleet Desktop

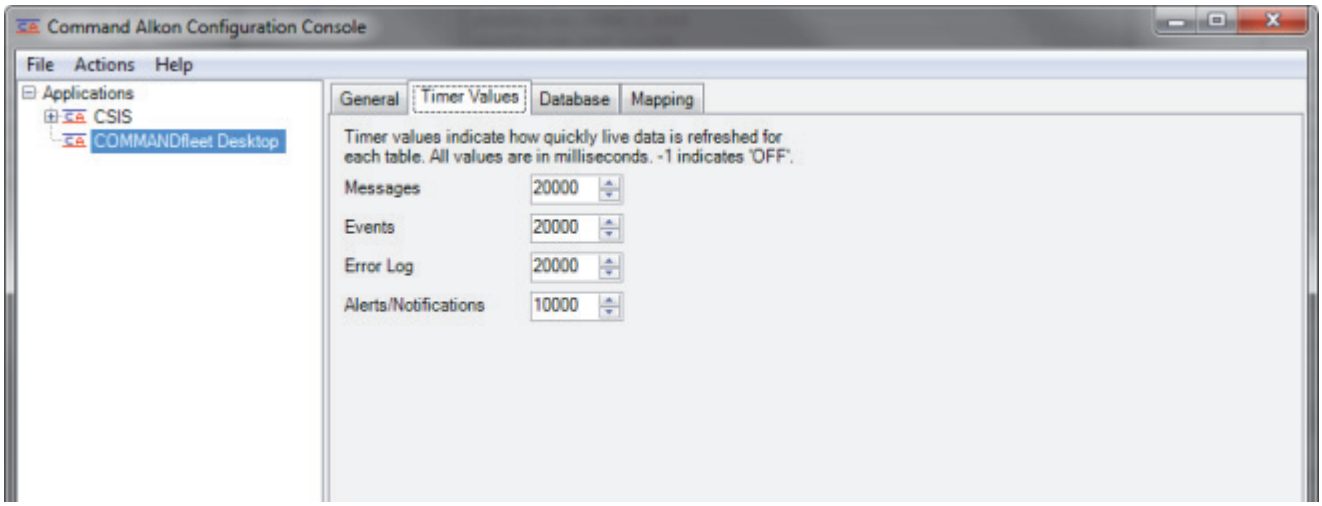
1. Click on COMMANDfleet Desktop in the left pane of the *Configuration Console*. The **General** tab displays. Set up this tab according to the recommendations of your IT/Admin personnel.



An example of the General tab for the COMMANDfleet Desktop configuration.

- **COMMANDseries Version** - Enter your COMMANDseries version number in this field. Note that the CS06 and CS08 2.x versions are considered **6.0.0.0** and that the CSPlus and CS08 3.x versions are considered **7.0.0.0**. Prior to CS06, the 4-place version, such as COMMANDseries version 5.57.9.19, was used for v5 COMMANDseries.

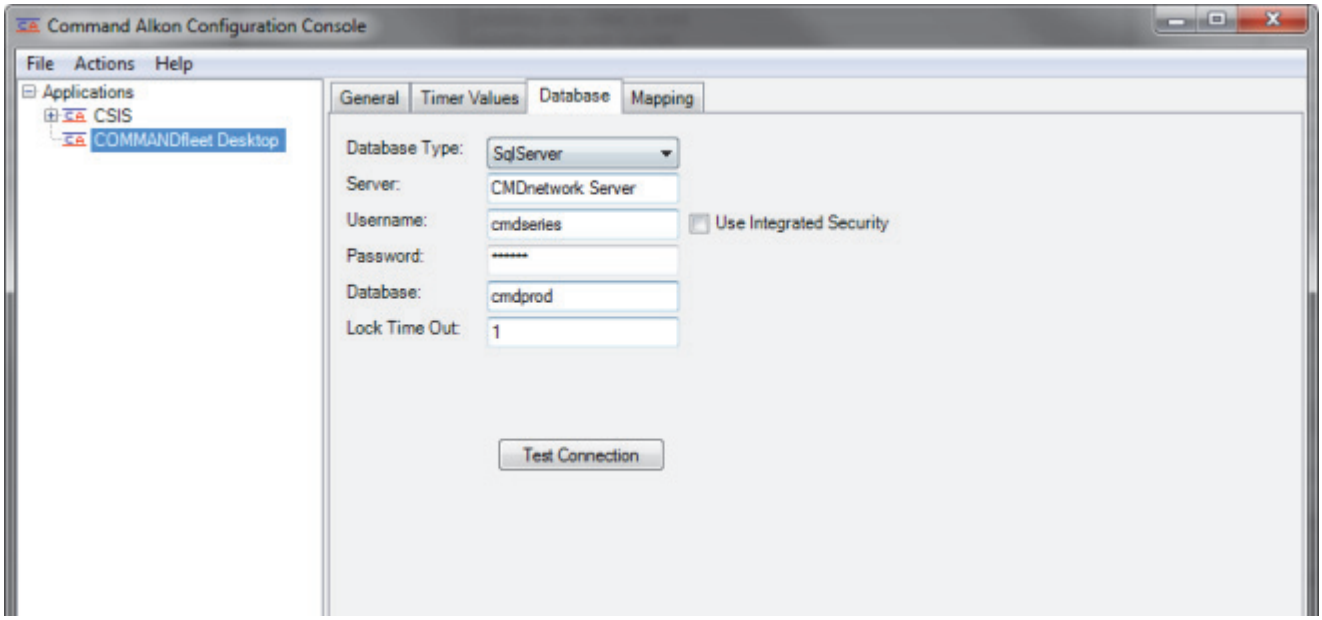
2. Set up the **Timer Values** tab according to the recommendations of your IT/Admin personnel.



An example of the Timer Values tab for COMMANDfleet Desktop configuration.

- **Alerts/Notifications** - This is the refresh period for the message grid on the *Alerts and Notification* module to get the latest alerts. The time is in milliseconds. The default value is 10,000 (10 seconds) and is configurable.

3. Set up the **Database** tab according to the recommendations of your IT/Admin personnel. This information is similar to that entered on the {*BLSxxx* > *Database*} tab.



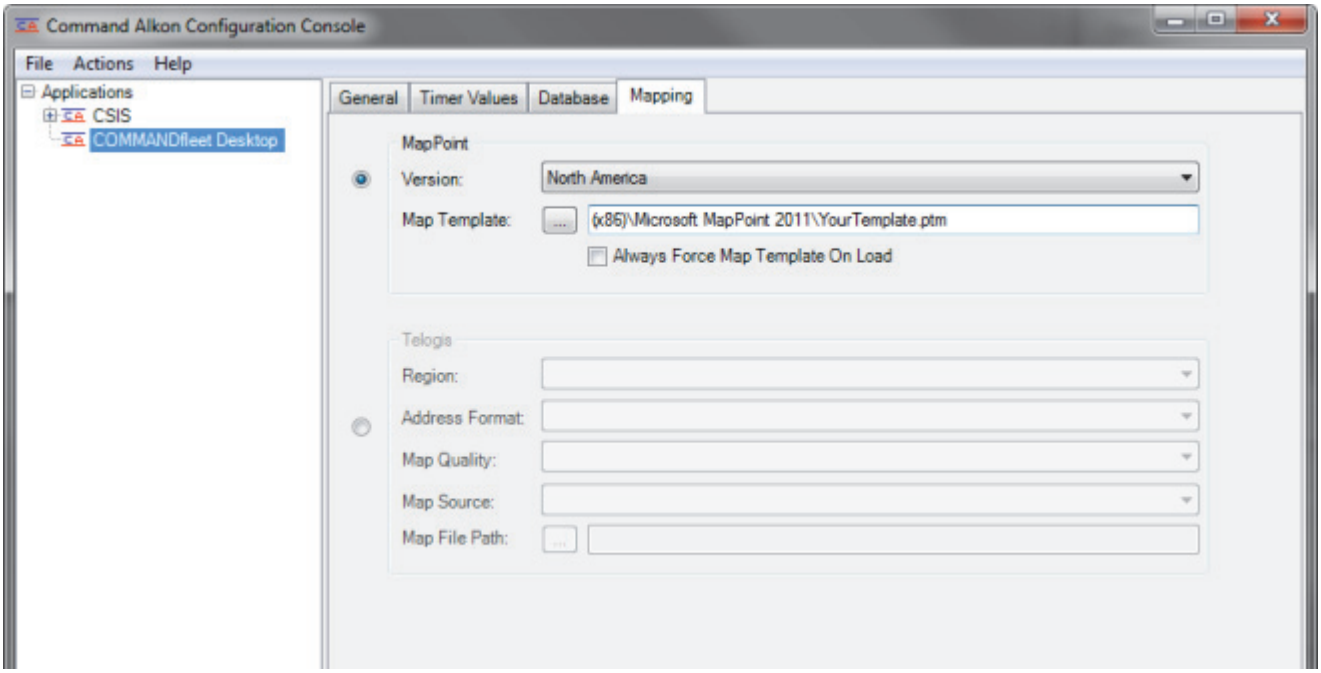
An example of the Database tab for COMMANDfleet Desktop configuration.

- **Database Type** - Select the appropriate database from this drop-down list.
- **Server/Username/Password** - Enter your database information (if unknown, you can get these from an ASN file). If running SQL Server, you will also have to specify a **Database**.
- **Use Integrated Security** - This is an Integrated Security feature that currently exists only on the COMMANDfleet Database tab. It allows the application to use the current

logged-in COMMANDseries User ID as the COMMANDfleet User ID. For example, there must be a user in the COMMANDseries USNM table with the same name as the network or machine logged in user. This does not include the domain portion of the user. When this checkbox is selected, the **Username** and **Password** fields are made read-only.

- **Lock Time Out** – The time (in minutes) the system will wait for a database response when a locked table is encountered.

4. On the **Mapping** tab, select a map version to use the Mapping module within the Dispatch Desktop. **MapPoint** is the only supported option.

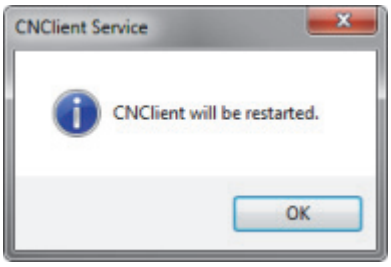


An example of the Mapping tab for COMMANDfleet Desktop configuration.

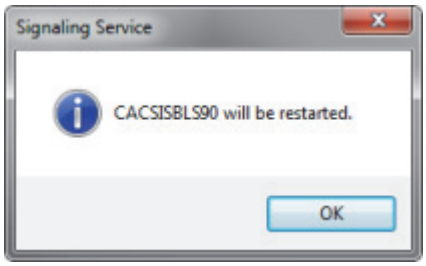
- **Version** - Select the version you are using from the drop-down list.
- **Map Template** - The map template contains your saved settings--speed limits, appearance, etc. Specify the location for the template and the program will load it automatically when it launches MapPoint.
  - **Always Force Map Template On Load** - This option will pull up your map template, which contains your region information. For example, instead of pulling up all of North America, forcing the map template to load will only load your the local area you saved as your map template.

Save Your Settings

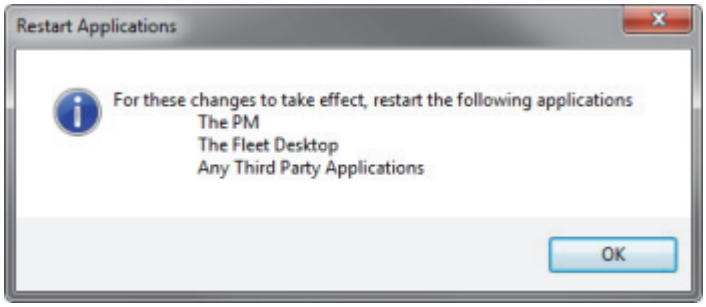
1. Select {*File* > *Save Settings*}.
2. A message appears letting you know that the CNClient will be restarted. Select **OK**.



3. Another message will appear to let you know that the BLS will be restarted as well. Select **OK**.



4. A final message will appear letting you know that you will need to restart the PM, Fleet Desktop and any third party applications for the changes to take effect. Select **OK**.



5. You can now exit the program.

Starting and/or Removing Components

1. The BLS and the CNClient need to have shortcut icons created on the desktop:
   - In `C:\CSIS\BLS\BLSxxx`, right-click `CA.CSIS.BLS.Manager.exe`. Select the **Send to > Desktop (Create shortcut)** option.
   - In `C:\CSIS\CNClient`, right-click `CA.CSIS.CNClient.Manager.exe`. Select the **Send to > Desktop (Create shortcut)** option.
2. To ensure that they will launch upon restarting the computer, you must manually place a copy of these shortcuts in the Windows Startup folder. Navigate to {*Documents and Settings* > *All Users* > *Start Menu* > *Programs* > *Startup*} or {*AppData* > *Roaming* > *Microsoft* > *Windows* > *Start Menu* > *Programs* > *Startup*} and move or copy the two shortcuts into this folder.
3. Once these two services are started, tray icons let you easily start or stop these services. When a service has been started, the icons appear as shown:

***Note**: You can view the descriptions of the BLS and CNClient icons by hovering your mouse over one of the icons.*

In the tray example above, the left icon is the CSIS BLS Service Manager and the icon next to it is the CNClient Service Manager and looks similar to the COMMANDnetwork tray icon. All the services are started.

4. Simply double-click (or right-click) on the appropriate tray icon to either **Start** or **Stop** the service.

   ***Note**: The CSIS BLS will need to be stopped and started in this manner when updates are made to the truck file or signaling unit in COMMANDseries*.

In this example, both services are stopped.

5. If, for any reason, you need to remove a component, do not use the Window's **Add or Remove Programs** application. The *Configuration Console* must be used to remove any components.

- To remove a PM, right-click on **PMxx** and select **Remove PM**.
- To remove a BLS, right-click on **BLSxx** and select **Remove BLS**.
- To remove the CNClient, right-click on CNClient and select **Remove CNClient**.

The CSIS Protocol Manager

This section only applies to those using a COMMANDsignal Protocol Manager.

Topics in this section:

How to Start and Configure the CSIS PM

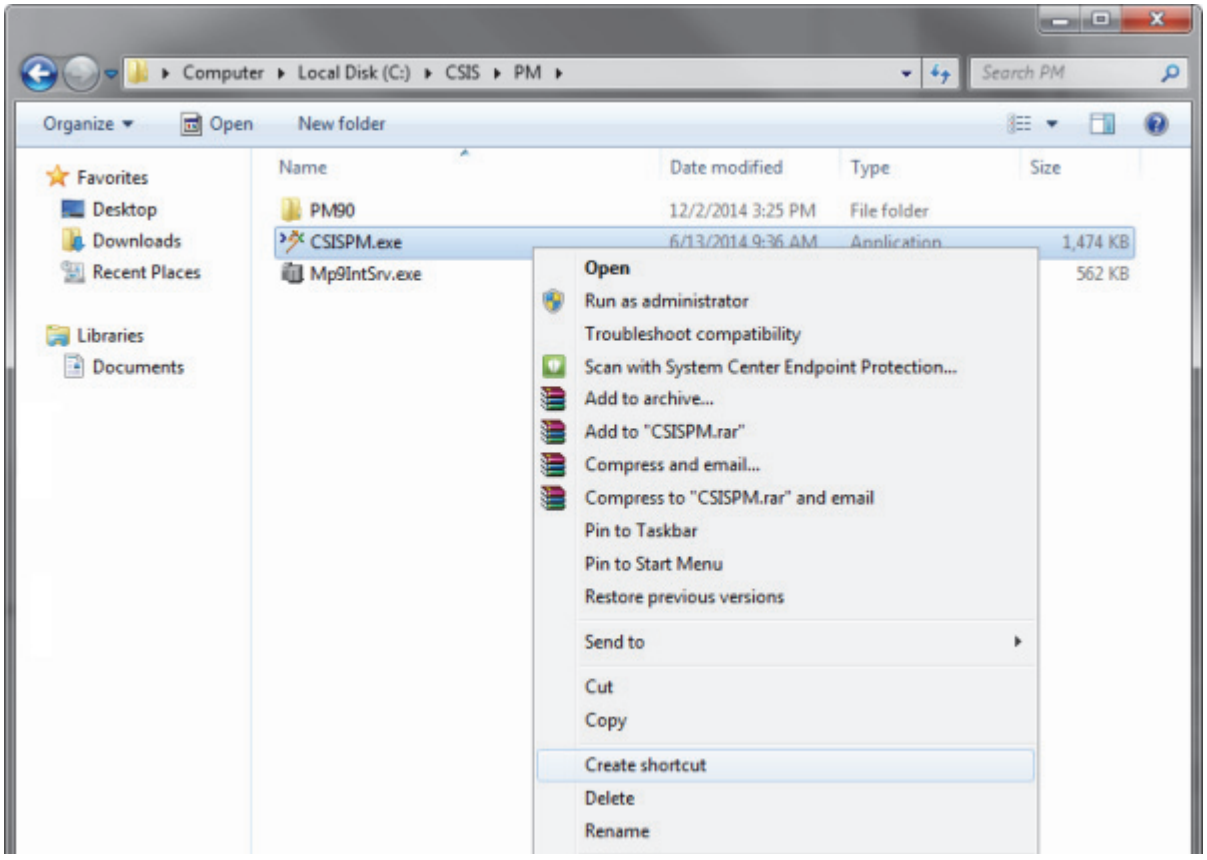
Using the CSIS PM

How to Start and Configure the CSIS PM

First you will need to create a shortcut to the PM on the desktop. This is the only way to launch the PM in Fleet and is required to run when using a CSIS PM.

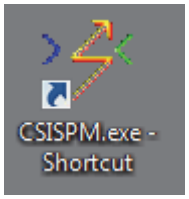
Create a PM Desktop Icon

1. To create a shortcut to the PM on the desktop, go to the PM folder of your CSIS folder (generally stored to your local disk drive).
2. Right-click on the `CSISPM.exe` file and select **Create Shortcut**.



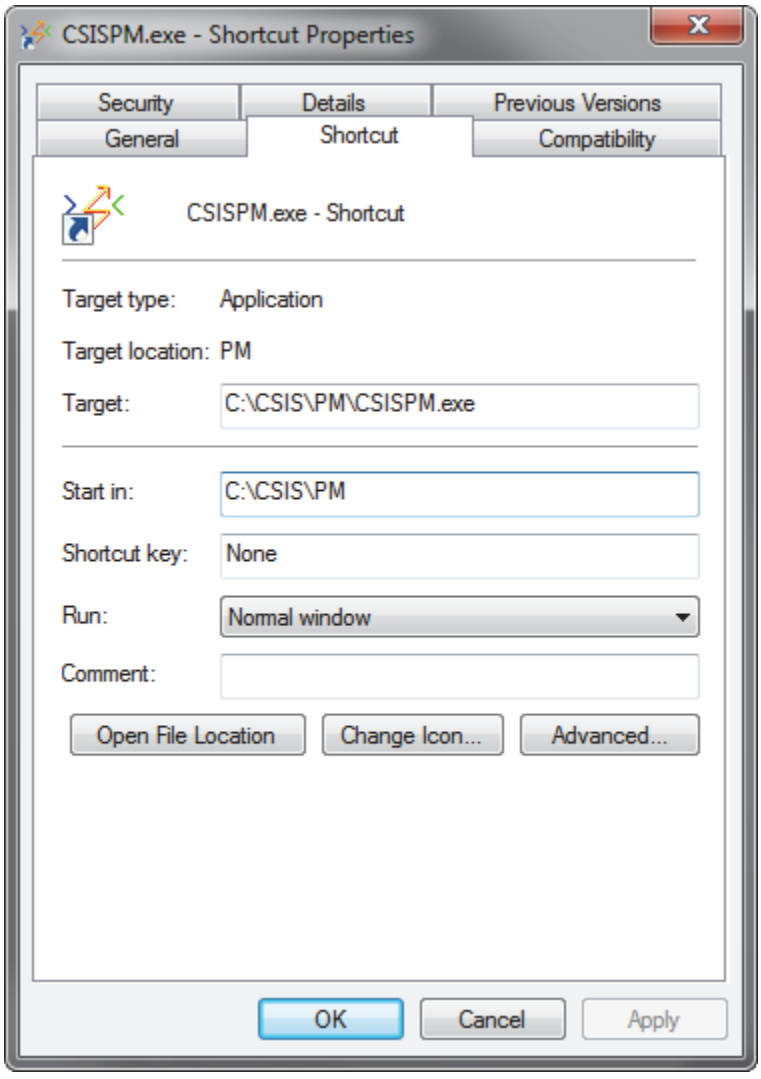
An example of how to create the PM desktop icon.

3. Move the shortcut to the desktop.



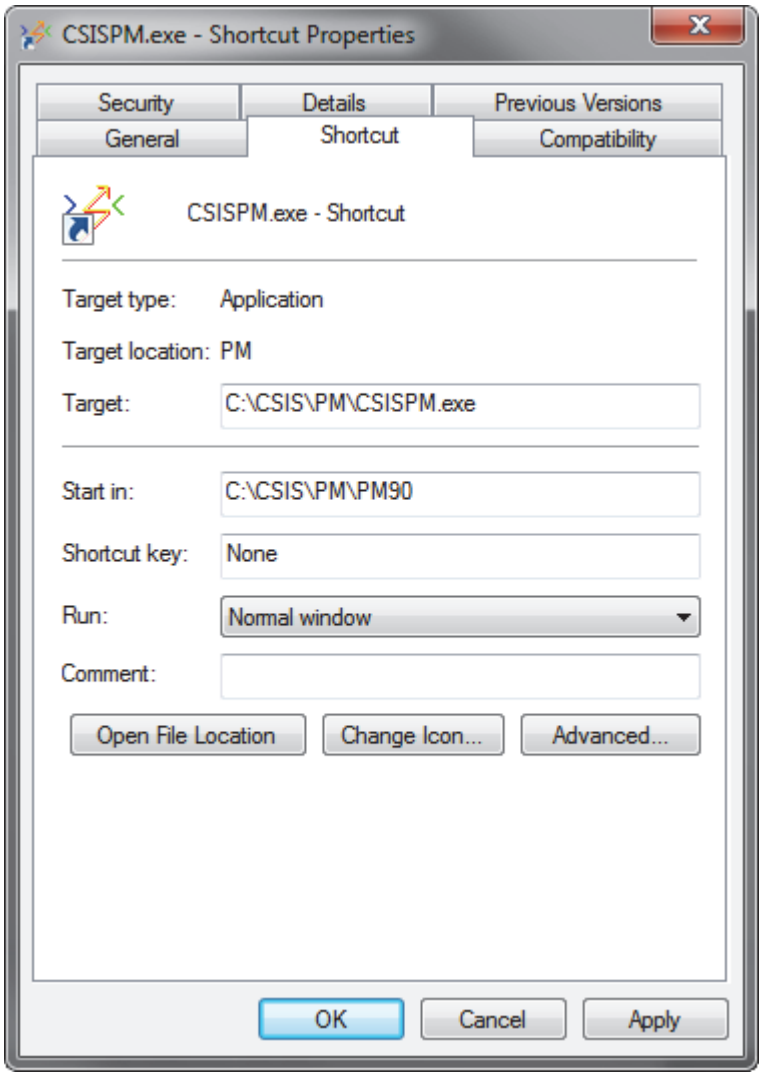
An example of the CSIS PM shortcut.

4. Right-click the shortcut and select **Properties**. Navigate to the **Shortcut** tab.



An example of the CSIS PM Properties window.

5. In the **Start in:** field, fill in the name of your PM at the end of the file path. For example, if your PM appears in the configuration console as PM90, enter PM90 at the end of the file path.

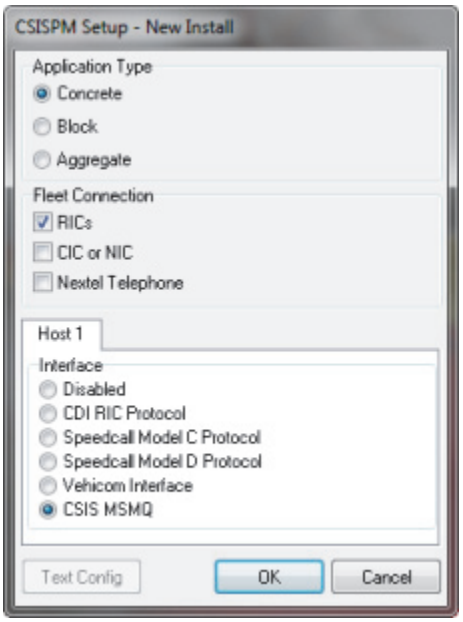


An example of how the **Start In:** field should look after the PM has been added.

6. Select the **Apply** button followed by the **OK** button.

Starting the PM for the First Time

1. Start the PM application by clicking on the shortcut that you just created. Note that if the Windows Security Alert message appears, click **Unblock**.
2. Complete the following information:



An example of the CSISPM Setup - New Install screen.

- **Application Type** - Select the type of plant to be used: **Concrete**, **Block**, or **Aggregate**.
- **Fleet Connection** - Select the type of connection you would like to create:
  - **RICs** - For two-way radio.
  - **CIC or NIC** - For cellular interface or Nextel through a network.
  - **Nextel Telephone** - When using a Nextel phone on a serial port.
- **Host** - Select the type of connection you would like to create:
  - **Disabled** - This is used with a standalone system.
  - **CSIS MSMQ** - This is the default setting for the COMMANDfleet PM.

    ***Note**: The following options are no longer supported for Host Connections:* **CDI RIC Protocol**, **Speedcall Model C/D Protocol**, *and* **Vehicom Interface**.

3. After selecting the appropriate settings, click **OK**. A dialog box will appear to confirm what you have chosen. Click **OK** to continue.
4. The main *CSIS Protocol Manager* screen opens. The next section discusses the configuration of the PM. Details on using the main screen are discussed in Using the CSIS PM.

Configuring the PM from the System Menu

Topics in this section:

Configure RICs

Outgoing Message Options

Auto Clear Screens On New Day

New Truck Number Registration

Diagnostic Log

Host Options

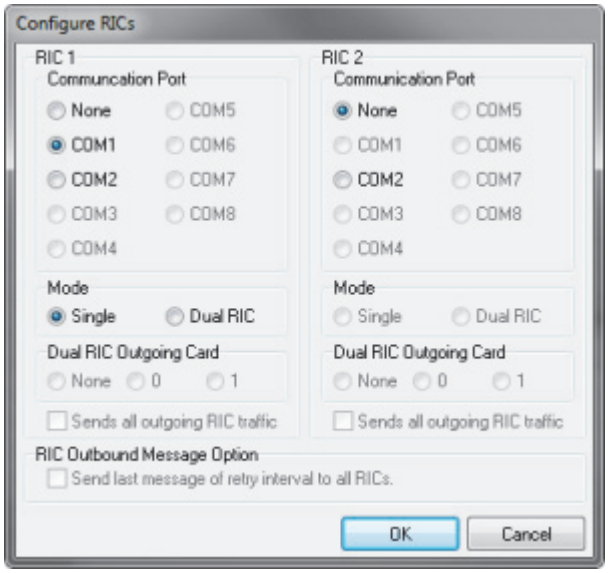
Status Key Lockout

Remote VSC2 Settings

Configure RICs

If **RIC** is selected under **Fleet Connection** follow these steps:

1. From the main PM screen, select {*System* > *Configure RICs*} from the main menu. The following screen will appear:



An example of how to use the *Configure RICs* screen.

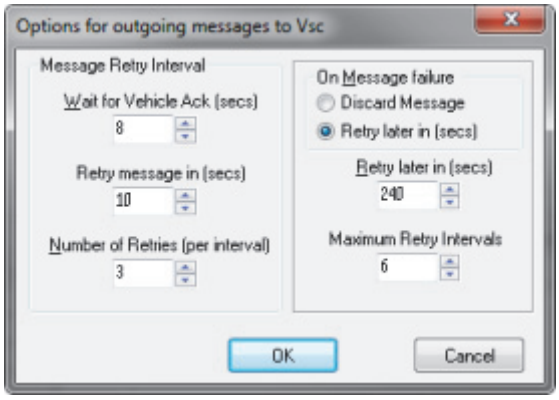
2. To control two RICs, you must have three or more COM Ports. Unavailable COM Ports will be grayed out; only the COM Ports you have will be available for selection.
3. Complete the following information for RIC 1:

- **Communication Port** - Select the COM port to be used for RIC 1.
- **Mode** - If there are three lights located on the RIC, select **Single**. If there are six lights located on the RIC, select **Dual RIC**.
- **Dual RIC Outgoing Card** - If **Single** is selected under **Mode**, this feature will not be accessible.
  - **None** - Select when a dual channel RIC is configured to receive on both cards. Text messaging will be sent out to the designated card that each truck number statusing is received on.
  - **0** - Select for outbound text messaging on a data channel in a dual channel configuration.
  - **1** - Select for outbound Text messaging on a voice channel.

4. If two RICs are required, follow step 3 to configure **RIC 2.** If only one RIC is required, select **None** under **Communication Port** for RIC 2. Note that if **RIC 1** has a **Mode** of **Single**, you may not access the **Mode** or **Dual RIC Outgoing Card** of **RIC 2**.
5. If the **Send last message of retry interval to all RICs** is selected, the message retry logic starts the retry interval as it currently is, sending the message only on the registered outgoing RIC card. If the message is still not delivered (no ACK received), the last message of the retry interval is sent on all outgoing RIC cards. Then, if no ACK is received, the message has failed. This option is only available if you have a **Dual RIC Outgoing Card** selected.

Outgoing Message Options

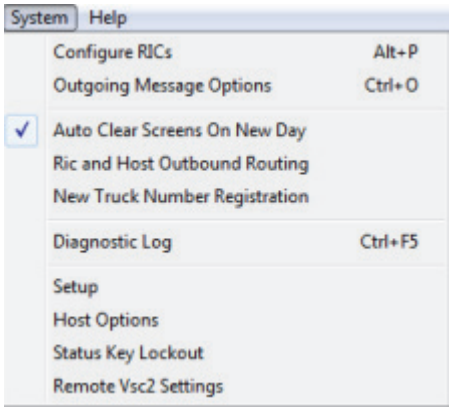
1. Select {*System* > *Outgoing Message Options*} on the main menu. Configure the outgoing messages. The following is an example of the recommended settings:



These are the recommended settings for Outgoing Message Options.

Auto Clear Screens On New Day

When this option is selected from {*System* > *Auto Clear Screens On New Day*}, the screens will automatically clear at midnight of each new day. A check mark will appear when this feature is turned on as shown below.

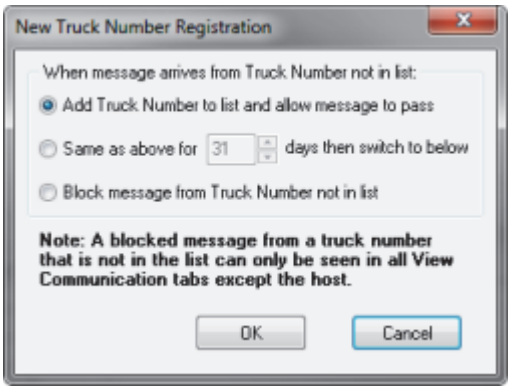


An example of the Auto Clear Screens On New Day option.

***Note**: A CSL Log file will be generated each day with or without selecting this function.*

New Truck Number Registration

1. To register a new truck number, select {*System* > *New Truck Number Registration*} from the menu. Select an option from the following screen:


New Truck Number Registration
When message arrives from Truck Number not in list:
Add Truck Number to list and allow message to pass
Same as above for 31 days then switch to below
Block message from Truck Number not in list
Note: A blocked message from a truck number that is not in the list can only be seen in all View Communication tabs except the host.
OK
Cancel

An example of how to register a new truck number.

- **Add Truck Number to list and allow message to pass** - If this option is selected, the truck number will automatically be added to the list when the driver presses the In Service button.

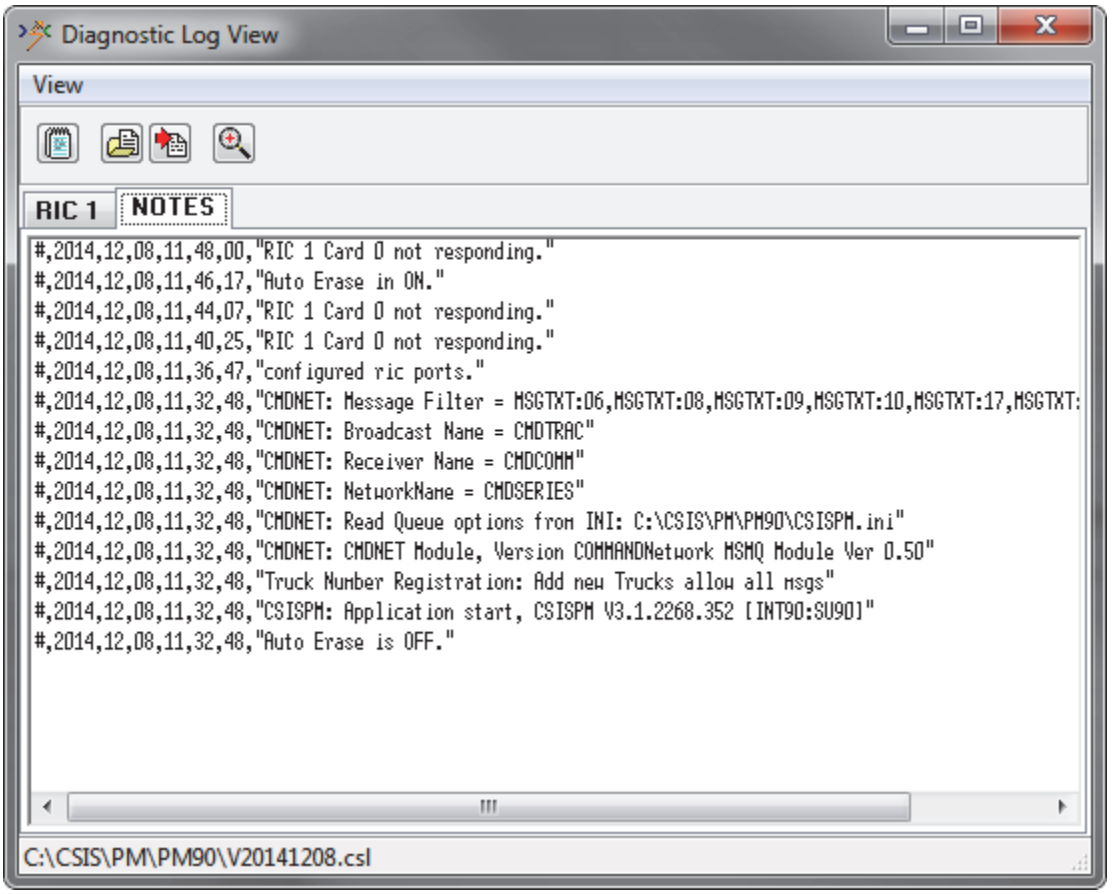
  ***Note**: The truck must be in the COMMANDseries truck list.*

- **Same as above for XX days then switch to below** - If selected, enter the number of days to add truck numbers automatically. At the end of that time, the truck number will be blocked from the list.
- **Block message from Truck Number not in list** - If selected, any new trucks which are not on the list are not allowed to pass. This truck number will only be seen in the View Communication RIC tabs.

Diagnostic Log

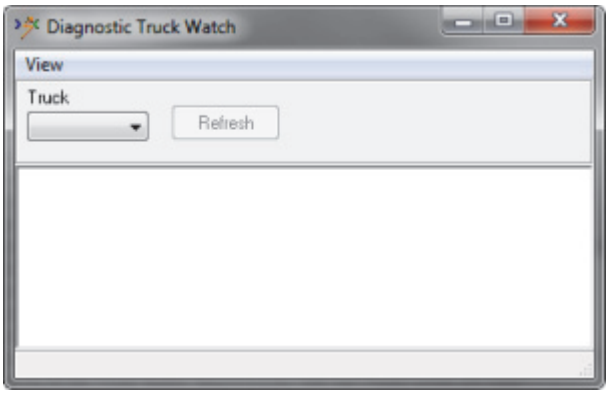
The *Diagnostic Log View* screen is used to monitor data traffic between the RIC and the Signaling units in the trucks.

1. Select {*System* > *Diagnostic Log*} from the main menu.
2. To open the current diagnostic file, click on the button. The **NOTES** tab displays errors and events. You can drag the corners of the screen (or maximize it) to see more information.


Diagnostic Log View
View
RIC 1
NOTES
#,2014,12,08,11,48,00,"RIC 1 Card 0 not responding."
#,2014,12,08,11,46,17,"Auto Erase in ON."
#,2014,12,08,11,44,07,"RIC 1 Card 0 not responding."
#,2014,12,08,11,40,25,"RIC 1 Card 0 not responding."
#,2014,12,08,11,36,47,"configured ric ports."
#,2014,12,08,11,32,48,"CMDNET: Message Filter = MSGTXT:06,MSGTXT:08,MSGTXT:09,MSGTXT:10,MSGTXT:17,MSGTXT:
#,2014,12,08,11,32,48,"CMDNET: Broadcast Name = CMDTRAC"
#,2014,12,08,11,32,48,"CMDNET: Receiver Name = CMDCOMM"
#,2014,12,08,11,32,48,"CMDNET: NetuorkName = CMDSERIES"
#,2014,12,08,11,32,48,"CMDNET: Read Queue options from INI: C:\CSIS\PM\PM90\CSISPM.ini"
#,2014,12,08,11,32,48,"CMDNET: CMDNET Module, Version COMMANDNetuork MSMQ Module Ver 0.50"
#,2014,12,08,11,32,48,"Truck Number Registration: Add new Trucks allow all msgs"
#,2014,12,08,11,32,48,"CSISPM: Application start, CSISPM V3.1.2268.352 [INT90:SU90]"
#,2014,12,08,11,32,48,"Auto Erase is OFF."
C:\CSIS\PM\PM90\V20141208.csl

An example of the NOTES tab for the *Diagnostic Log View* screen.

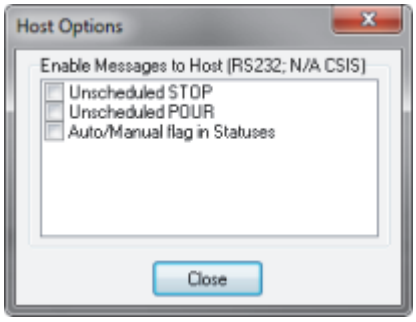
3. To open log files, click the button. A standard browsing screen appears. The log files are generally located in your PMxx folder and are used for advanced troubleshooting by Command Alkon Service Personnel. You will need to have the folders set to **Show** in order to view the contents.Click on a file name, such as **`V20141205.csl`**, followed by **Open**. The file name is the date of the file for a 24 hour period. For example, **`V20141205.csl`** stands for the year 2014, the 12th month, and the 5th day (12/05/2014). The codes of the selected file are displayed in the *Diagnostic Log View.*
4. The *Diagnostic Truck Watch* screen can be used as a filter to display only one particular truck's data.To view, click the button. Select the truck number to be viewed in diagnostic view by clicking on the **Truck** dropdown. To update the screen, click the **Refresh** button.



An example of the *Diagnostic Truck Watch* screen.

Host Options

Selecting {*System* > *Host Options*} from the menu allows you to enable sending an unscheduled stop or pour to the host. They are alerts and warnings used when trucks stop at the traveling status. Select or deselect each check box according to your needs. Refer to the Remote VSC2 Settings section below for more information and configurations of these Host Options.

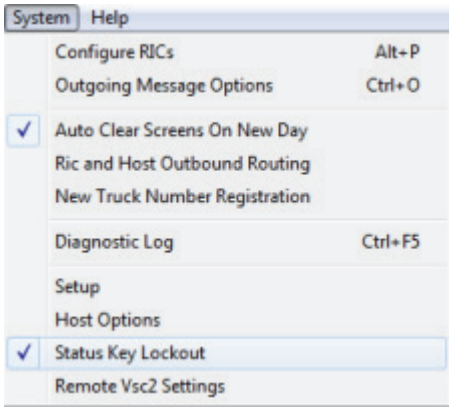


An example of the Host Options screen.

***Note**: If the current application is not Concrete, the **Unscheduled POUR** option is not available.*

Status Key Lockout

This option will locks a driver's buttons if all statuses are present. Select it so that a check mark appears next to the option to turn it on. Re-select it to turn it off.

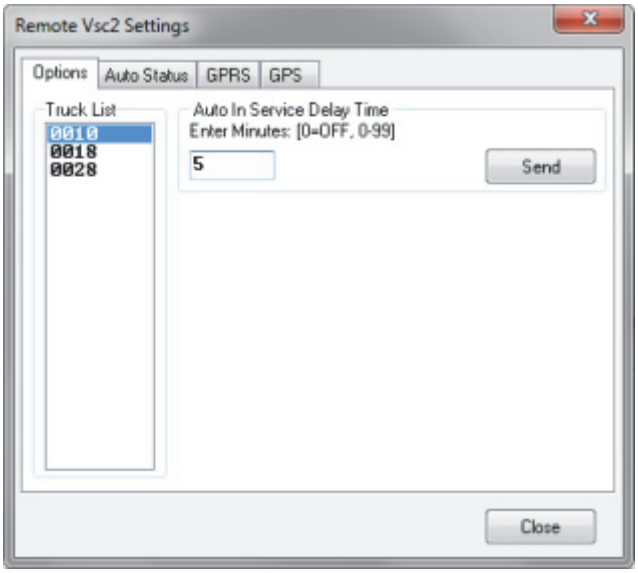


An example of the Status Key Lockout being turned on.

Remote VSC2 Settings

This screen is used to set the **Unscheduled Stop Time**, the **Automatic In Service Delay Time**, and the **Keep Alive Signal** for GPRS units.

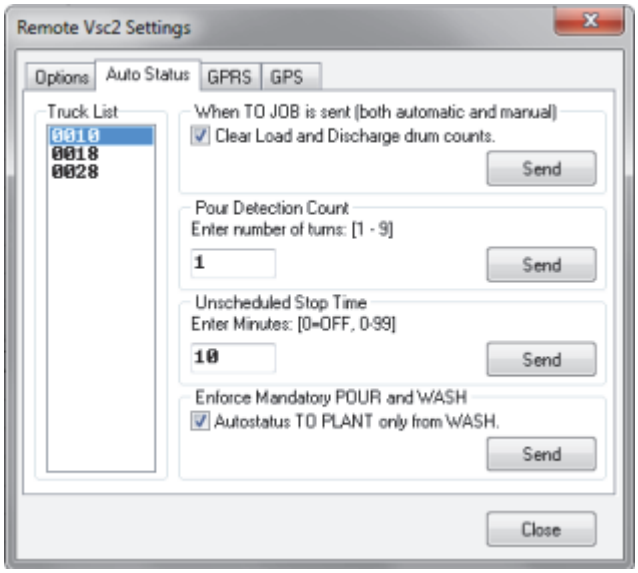
1. Select {*System* > *Remote VSC2 Settings*} from the main menu.
2. Enter the following information for the **Options** tab:



An example of the Options tab for Remote VSC2 Settings.

- **Truck List** - Select a truck and enter the information described next.
- **Automatic In Service Delay Time** - After the unit has been off for 4 hours or more, this is the amount of time, after the VSC3 is powered up, that the unit's status automatically goes to IN SERVICE. If set to 10 fro example, ten minutes after VSC3 powers up, the IN SERVICE status is applied automatically. The default setting is 0 minutes, or off. To turn this feature on, enter a value between 1 and 99 minutes.
- **Send** - After entering a delay time, click the **Send** button so that the VSC3 can enable Automatic In Service for the specified truck.

3. Enter the following information for the **Auto Status** tab:

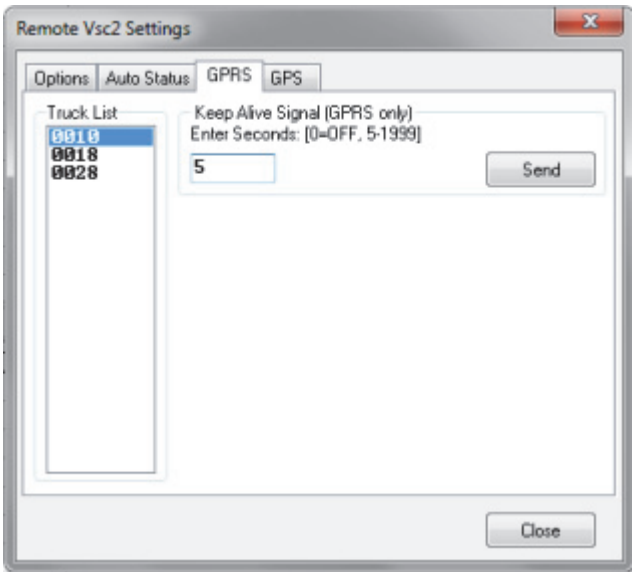


An example of the Auto Status tab for Remote VSC2 Settings.

- **When TO JOB is sent (both automatic and manual)** - This is used for trucks with drum features and will clear the load/discharge counters on the VSC.
- **Pour Detection Count** - Enter the number of turns the drum must make in order to inform the system that the status has changed to POUR.
- **Unscheduled Stop Time** - An **Unscheduled Stop** (status code 71) is sent when the current status is TO JOB or TO PLANT and the speed remains below 3 mph for the amount of time entered in this field. Timing starts when the status changes to TO JOB or TO PLANT and an **Unscheduled Stop** is sent each time the programmed time interval elapses with a speed below 3 mph.
- **Enforce Mandatory POUR and WASH** - An **Unscheduled POUR** (status code 72) is sent when the current status is TO PLANT and the drum direction changes to discharge (this requires the truck to have a drum rotation sensor kit and it cannot be disabled). When an **Unscheduled STOP** or **Unscheduled POUR** is received, they appear as white text on red background in the main window on the Incoming Status and Truck Tracking panes. If a host is enabled, each unique message is also forwarded to the host. The default setting is 0 minutes, or off. To turn this feature on, enter a value of 1 to 99 minutes. Note that if the truck is equipped with a drum rotation kit, this field cannot be disabled.

***Note**: To use some of these features, such as **Unscheduled Pour** or **Unscheduled Stop**, you will need to have them turned on under Host Options.*

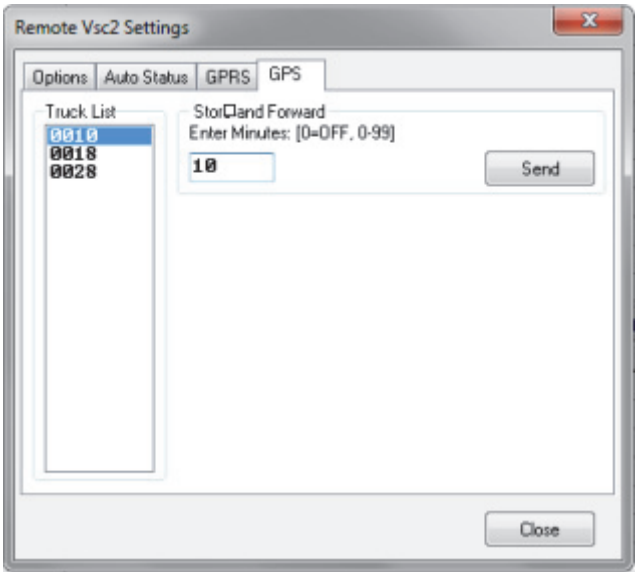
4. Enter the following information for the **GPRS** tab:



An example of the GPRS tab for Remote VSC2 Settings.

- **Keep Alive signal (GPRS only)** - For these units, the VSC3 sends a keep alive signal (status code 70) whenever the entered amount of time elapses with no network traffic. This is to keep the connection established for outgoing traffic from dispatch in COMMANDseries. It is recommended that you start at a 15-minute interval (enter 900 in this field). This section is grayed out when GPRS units are not being used with the VSC Base.

5. Enter the following information for the **GPS** tab:

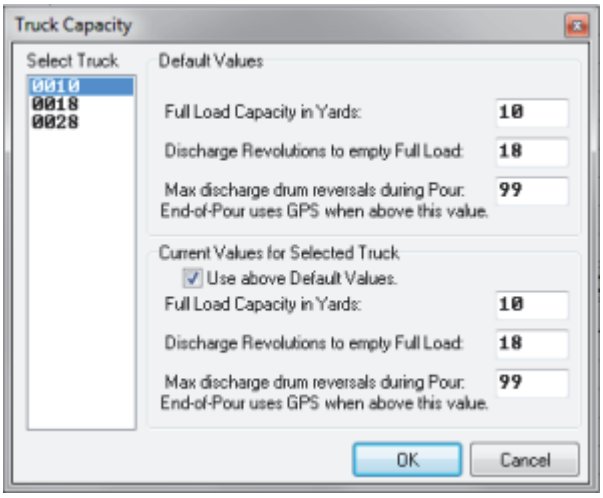


An example of the GPS tab for Remote VSC2 Settings.

- **Store and Forward** - For these units, the VSC3 sends a Store and Forward message to COMMANDfleet that updates the truck's current location, heading, satellite, and antenna status on a regular interval. This is most commonly used with the Snail Trail feature.

Truck Load Capacity

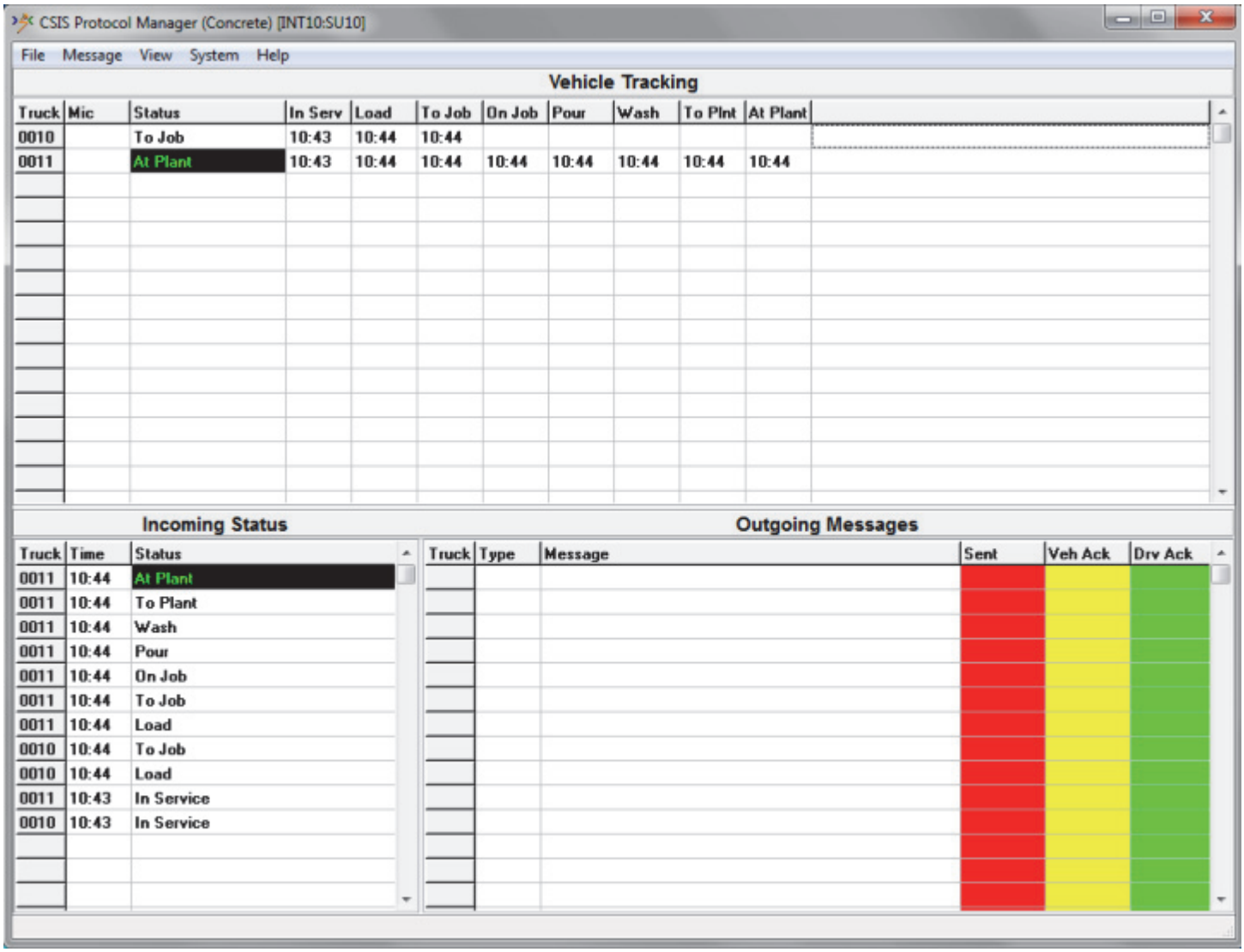
You must set each truck's load capacity. To do so, select {*System* > *Truck Load Capacity*} from the main menu. Each truck can be set up for the default set of values or individual values can be set based on the truck's load size.



An example of the *Truck Capacity* window.

Using the CSIS PM

The following is an example of the main PM screen for the Concrete application. The main screen consists of three graphical sections and a menu toolbar.


CSIS Protocol Manager (Concrete) [INT10:SU10]
File Message View System Help
Vehicle Tracking
Truck Mic Status In Serv Load To Job On Job Pour Wash To Plnt At Plant
0010 To Job 10:43 10:44 10:44
0011 At Plant 10:43 10:44 10:44 10:44 10:44 10:44 10:44 10:44
Incoming Status
Truck Time Status
0011 10:44 At Plant
0011 10:44 To Plant
0011 10:44 Wash
0011 10:44 Pour
0011 10:44 On Job
0011 10:44 To Job
0011 10:44 Load
0010 10:44 To Job
0010 10:44 Load
0011 10:43 In Service
0010 10:43 In Service
Outgoing Messages
Truck Type Message Sent Veh Ack Drv Ack

An example of the CSIS Protocol Manager for Concrete.

The Vehicle Tracking Pane

The Vehicle Tracking pane is located in the top section of the screen. This pane becomes active when the In Service status has been received and displays the time that each status is received from each truck. Manual statuses, meaning the driver presses a button, are indicated by a blue background while automatic statuses are indicated by a red background.

> ***Note**: The status time displayed on the Vehicle Tracking pane is the driver entered time and may not be the actual status time available on the tracking screen.*

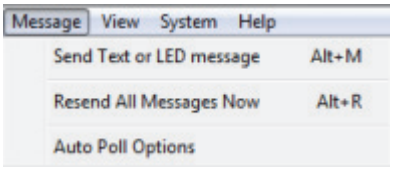
The Incoming Status Pane

The Incoming Status pane displays a chronological log of all trucks, times, statuses, and messages.

The Outgoing Messages Pane

The Outgoing Messages pane displays a log of all outgoing messages.The red color in the Message column means that there has been no acknowledgment from the truck yet. It turns green when acknowledged.

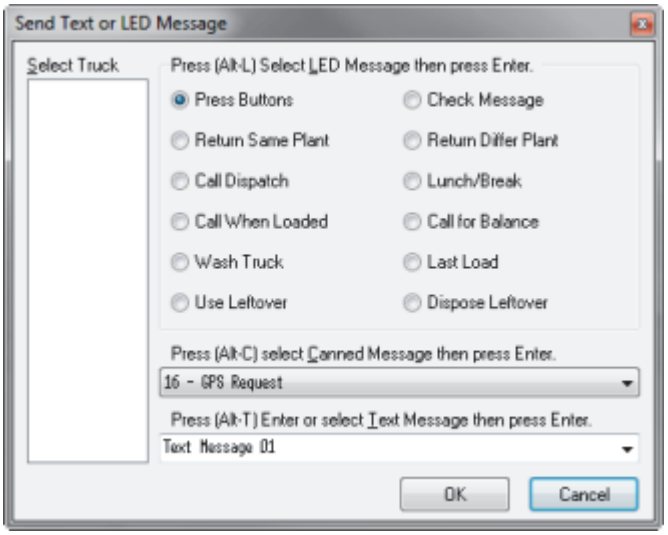
Message Menu Options



An example of the Message menu options.

Send Text or LED Message

1. To send a text or LED message, select {*Message* > *Select Send Text or LED Message*} (or press the Ctrl+M shortcut). The following screen appears:



An example of the *Send Text or LED Message* screen.

2. Select a truck number by clicking on the number or the using arrow keys, then click the radio button to select a message.
3. Click **OK** to send the message. The message will be logged in the Outgoing Messages pane.

   ***Note**: When the GPS Request message is sent, the time the message is sent displays only in the Outgoing Messages pane. The Veh Ack and Drv Ack columns are blank. This is not logged in the Incoming Status pane. All other messages are logged in both panes. When messages are sent from the PM, they are not available on the COMMANDseries Tracking and Scheduling screen.*

Resend All Messages Now

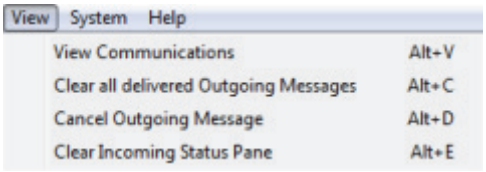
This function sends all messages waiting for a vehicle acknowledgment and is meant to override the retry interval in the setup.

1. To resend messages, select {*Message* > *Resend All Messages Now*} (or press the shortcut Ctrl+R). The following confirmation message appears: *This resends all messages waiting for vehicle ACK.*
2. Click **OK** or press Enter to resend all messages that are waiting for a vehicle acknowledgment. Click **Cancel** to exit without any action.

Auto Poll Options

This is an old setting for Show All Trucks and Snail Trial. It is now being accessed through the Dispatch Desktop.

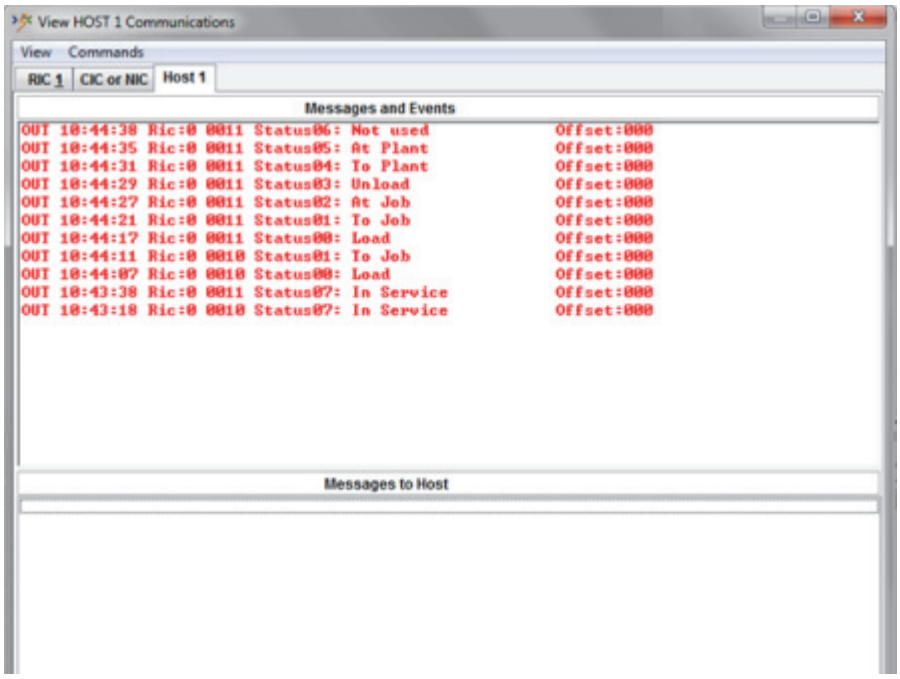
View Menu Options



An example of the View menu options.

View Communications

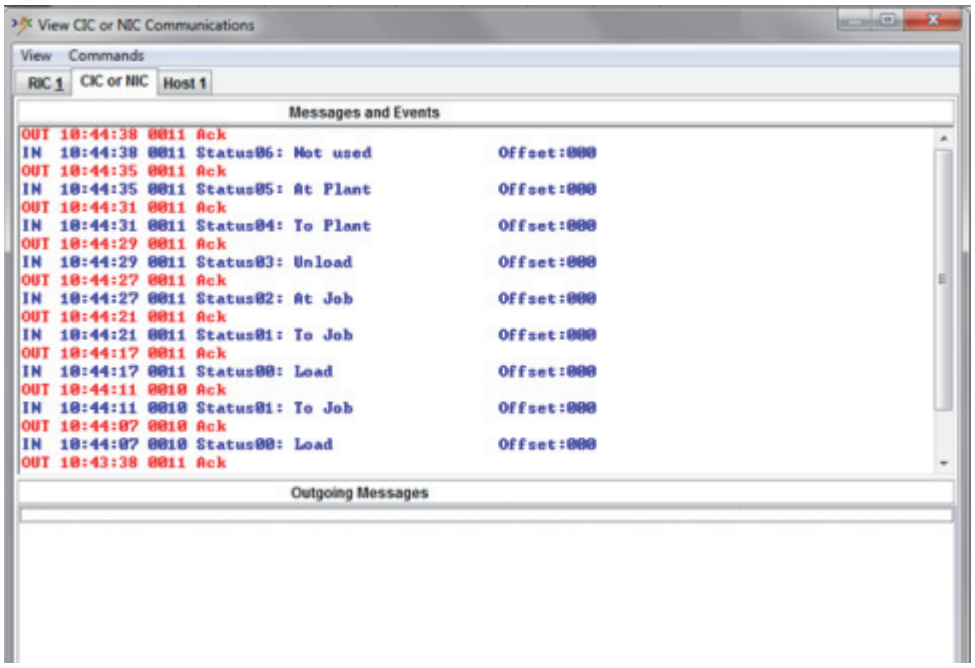
1. From the main screen, select {*View* > *View Communications*}. The screen title and tab labels depend on the Fleet Connection setting. The Host tab appears if a host is set up.


View HOST 1 Communications
View Commands
RIC 1
CIC or NIC
Host 1
Messages and Events
OUT 10:44:38 Ric:0 0011 Status06: Not used Offset:000
OUT 10:44:35 Ric:0 0011 Status05: At Plant Offset:000
OUT 10:44:31 Ric:0 0011 Status04: To Plant Offset:000
OUT 10:44:29 Ric:0 0011 Status03: Unload Offset:000
OUT 10:44:27 Ric:0 0011 Status02: At Job Offset:000
OUT 10:44:21 Ric:0 0011 Status01: To Job Offset:000
OUT 10:44:17 Ric:0 0011 Status00: Load Offset:000
OUT 10:44:11 Ric:0 0010 Status01: To Job Offset:000
OUT 10:44:07 Ric:0 0010 Status00: Load Offset:000
OUT 10:43:38 Ric:0 0011 Status07: In Service Offset:000
OUT 10:43:18 Ric:0 0010 Status07: In Service Offset:000
Messages to Host

An example of the Host tab for CIC or NIC fleet connections.

2. If equipped with more than one RIC, a tab on the *View Communications* screen appears for each RIC in use. The labels are **RIC 1** or **RIC 2,** depending on which tab is

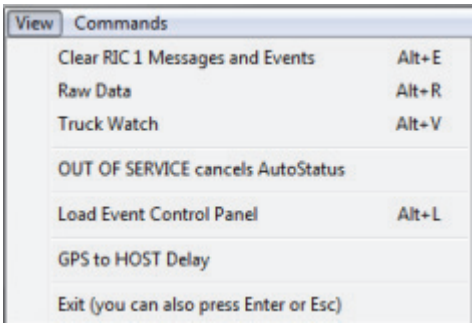
selected. For CIC or NIC Connections, a **CIC or NIC** tab is available.Select the tab of the component to be viewed.


View CIC or NIC Communications
View Commands
RIC 1 CIC or NIC Host 1
Messages and Events
OUT 10:44:38 0011 Ack
IN 10:44:38 0011 Status06: Not used Offset:000
OUT 10:44:35 0011 Ack
IN 10:44:35 0011 Status05: At Plant Offset:000
OUT 10:44:31 0011 Ack
IN 10:44:31 0011 Status04: To Plant Offset:000
OUT 10:44:29 0011 Ack
IN 10:44:29 0011 Status03: Unload Offset:000
OUT 10:44:27 0011 Ack
IN 10:44:27 0011 Status02: At Job Offset:000
OUT 10:44:21 0011 Ack
IN 10:44:21 0011 Status01: To Job Offset:000
OUT 10:44:17 0011 Ack
IN 10:44:17 0011 Status00: Load Offset:000
OUT 10:44:11 0010 Ack
IN 10:44:11 0010 Status01: To Job Offset:000
OUT 10:44:07 0010 Ack
IN 10:44:07 0010 Status00: Load Offset:000
OUT 10:43:38 0011 Ack
Outgoing Messages

An example of the CIC or NIC tab for the *View Communications* screen.

- The Messages and Events pane logs all communication activity. The Outgoing Messages pane logs all outgoing messages in queue. Outbound messages appear in red while inbound messages appear in blue. Outgoing messages appear very quickly unless there is a communication problem.
- You can select one or more lines and use the right-click menu to copy the data to the Window's clipboard. From there, you can paste data into other Windows applications. To select more than one continuous line, click and drag through the lines you want to copy. Use the Ctrl key to select non-contiguous lines.

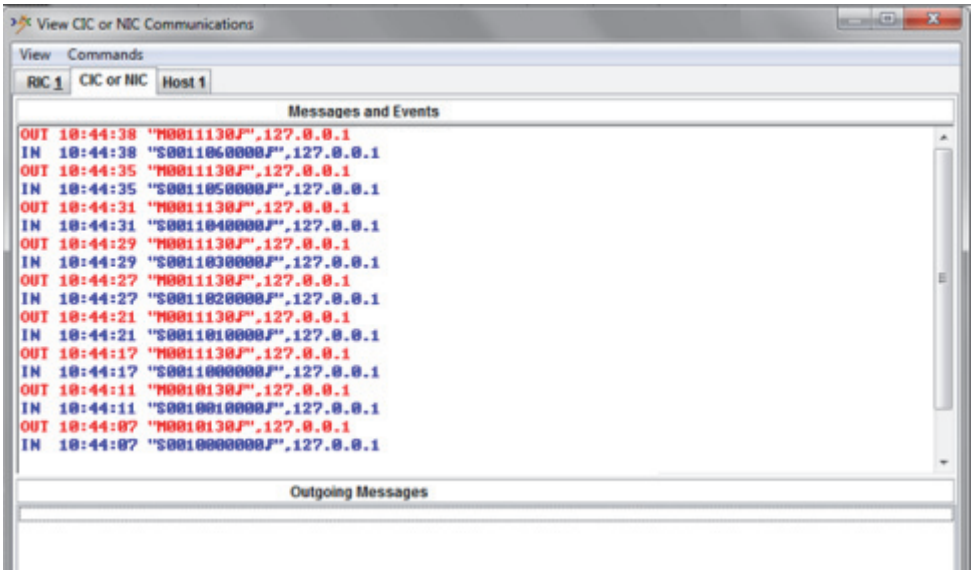
3. Also from the *View Communications* screen, you have several options under the View menu of the toolbar.


View Commands
Clear RIC 1 Messages and Events Alt+E
Raw Data Alt+R
Truck Watch Alt+V
OUT OF SERVICE cancels AutoStatus
Load Event Control Panel Alt+L
GPS to HOST Delay
Exit (you can also press Enter or Esc)

An example of the View menu.

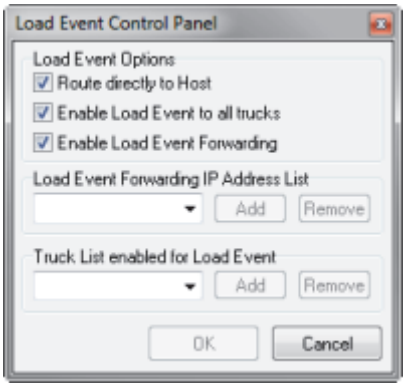
- To clear all messages and events, select **Clear Messages and Events**.

- To view raw data, select the **Raw Data** option. A check mark appears in the menu next to the option. Repeat this procedure to return to the default readable format.



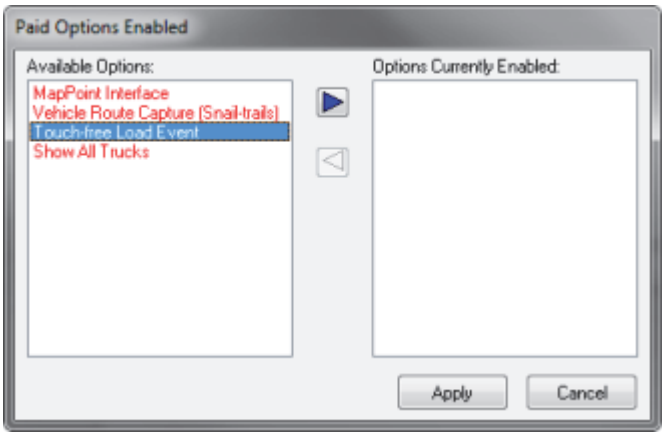
An example of the CIC or NIC tab when the Raw Data option is selected.

- The **Truck Watch** option is used as a filter to display data for any one truck.
- Depending on your setup, the **Load Even Control Panel** option may appear. This configures load statuses from a batch system to forward those statuses to COMMANDseries (Host) and to the trucks. There is also an option to forward the load statuses to another COMMANDfleet instance, but this is not commonly used.



An example of the *Load Event Control Panel* screen.

  - To make the **Load Event Control Panel** option available, press Alt + F5. The *Paid Options Enabled* screen will appear. You will need to select the **Touch-free Load Event** option and move it to the Options Currently Enabled section. It will prompt you for a password.

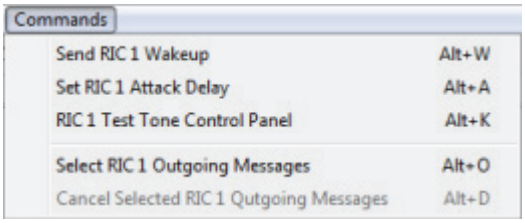


An example of the *Paid Options Enabled* screen (Alt +F5).

- A newer method of acquiring the Load Events has been developed for COMMANDbatch where they are configured in the *Configuration Console* and the PM is by-passed. To view these, refer to the appendix section on COMMANDbatch.

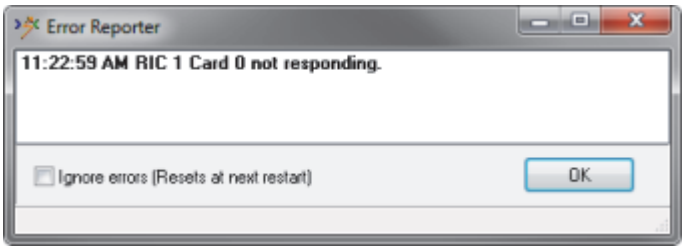
- The **GPS to HOST Delay** option is unused. Previously, it was used with analog systems.

4. There are also several options under the Commands menu.


Commands
Send RIC 1 Wakeup Alt+W
Set RIC 1 Attack Delay Alt+A
RIC 1 Test Tone Control Panel Alt+K
Select RIC 1 Outgoing Messages Alt+O
Cancel Selected RIC 1 Qutgoing Messages Alt+D

An example of the Commands menu.

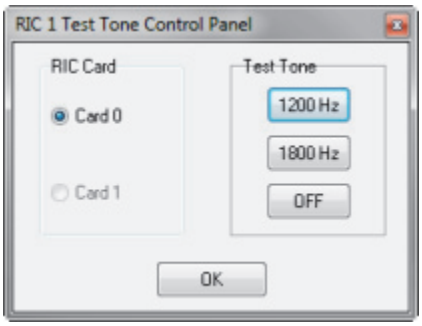
- The **Send RIC 1 Wakeup** option is used to check if the RIC is communicating with the VSC Base unit. An *Error Reporter* screen appears after the wakeup has gone out several times as shown in the following example:



An example of the *Error Reporter* screen.

- The **Set RIC 1 Attack Delay** and **Set Attack Delay on both RICs** options are not used anymore. Previously, they were used with analog systems.

- The **RIC 1 Test Tone Control Panel** option is only available for analog radios and not for CDPD or Nextel. It is used to set audio levels or text deviation levels. After selecting the **RIC 1 Test Tone Control Panel** option, enter the information on shown on the following screen:



An example of the *RIC 1 Test Tone Control Panel*.

- **RIC Card** - Select Card 0 (data card) or Card 1 (voice card).
- Select a **Test Tone**.
  - **1200 Hz** - Sends at tone of 1200 Hz (mark, 1).
  - **1800 Hz** - Sends a tone of 1800 Hz (space, 0).
  - **OFF** - Turns off the tone and un-keys the radio.
- The **Select Outgoing Messages** option displays the messages in the queue that have not received a vehicle acknowledgment. To delete an outgoing messages, use the **Select Outgoing Messages** option and click on the messages you would like delete. Then, select the **Cancel Selected Outgoing Messages** option.

  ***Note**: Outgoing Messages is the same for all setups but may be labeled differently. Also, the **Cancel Selected Outgoing Messages** text will be grayed out unless an outgoing message has been selected from the Outgoing Messages screen.*

Using the COMMANDfleet Dispatch Desktop

Topics in this section:

Launching the Dispatch Desktop

Toolbar Menu Options

Dispatch Desktop Basics

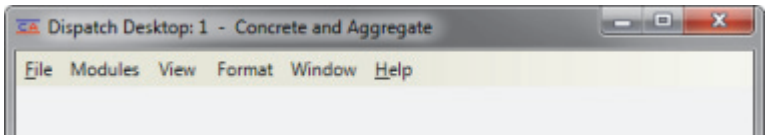
Modules

Launching the Dispatch Desktop

1. Select {*Start* > *Programs* > *Command Alkon* > *COMMANDfleet*} to launch the COMMANDfleet Desktop.
2. The *Login* dialog box appears, prompting you to enter your username and password.
3. When both the **User** and **Password** have been entered, press Enter. When *Dispatch Desktop* starts up, it scans the configuration table for the default configuration of the logged-in user. If the configuration is found at the user, group, or system level, that configuration is loaded. If no records are found for this user, the system loads an empty window.
4. Upon first log in, the window will be blank. you must first set your privileges to gain access to the desired modules. This is required for each user. Refer to the Administration and Privilege sections for more information on this process.

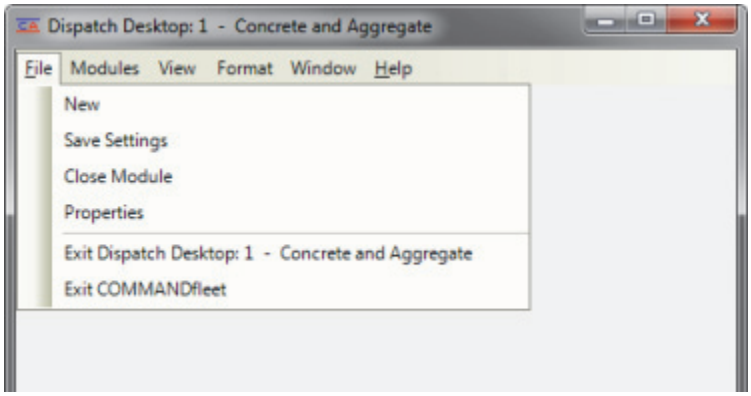
Toolbar Menu Options

Dispatch Desktop is very flexible and there are many ways to configure the desktop. Therefore, some of the screen examples shown in this manual may not look like those on your desktop.



An example of the Dispatch Desktop menu.

The File Menu

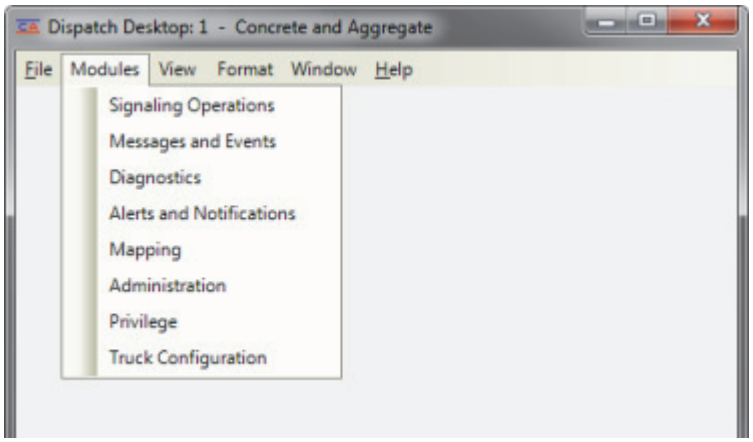


The File Menu

- **New** - This menu option opens a new instance of the *Dispatch Desktop*.
- **Save Settings** - If this option is selected, the next time that *Dispatch Desktop* is opened, it will have the same configuration as the last saved version for the logged-in user (or the last saved version for the group or system level).

  ***Note**: This is only available to the configuration manager.*
- **Close Module** - This closes only the currently selected module.
- **Properties** - In order to speed up processing time, you can specify a global setting to select one of the following Truck Retrieval modes: **Concrete and Aggregate** (default setting), **Concrete**, or **Aggregate**. This causes the Desktop title bar to be updated with the current Truck Retrieval Mode. If either the **Concrete** or **Aggregate** option is selected, SQL Queries (for Messages/Events and Diagnostics) will pull only the appropriate truck records.
- **Exit Dispatch Desktop:** - This closes the selected window and includes all modules contained in the window. If this is the only open window of the *Dispatch Desktop*, the entire application will close.
- **Exit COMMANDfleet** - This closes ALL *Dispatch Desktop* windows and exits the application.

The Modules Menu



Modules Menu

The following modules appear under the Modules menu of the toolbar. Each selection in this menu opens that named module in the *Dispatch Desktop*. For more information on these modules, refer to the Modules section which contains information about these modules in detail.

> ***Note**: You will need to set the privileges using upon the first use of the Dispatch Desktop for users to have access to certain modules.*

Signaling Operations

Messages and Events

Diagnostics

Alerts and Notifications

Water Added Inquiry

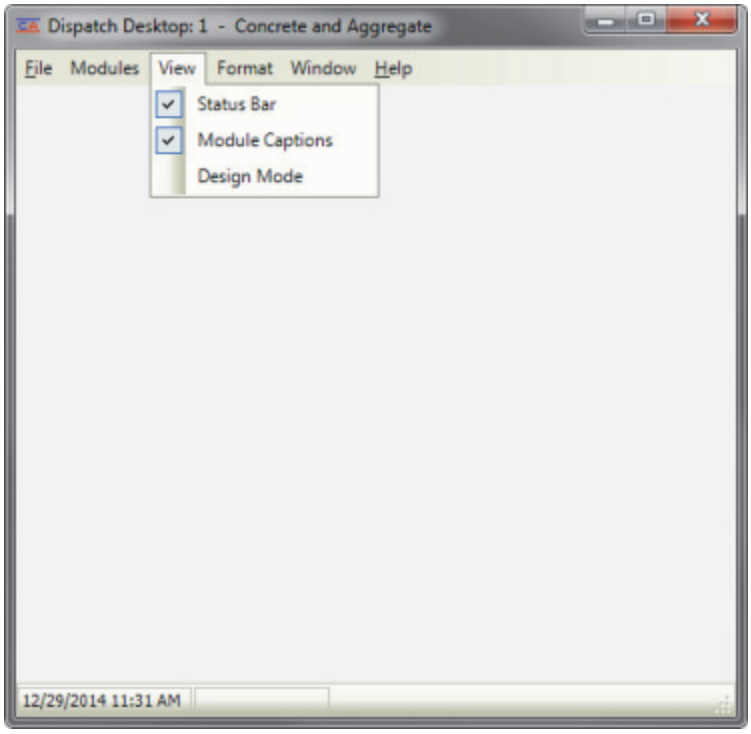
Mapping

Administration

Privilege

Truck Configuration

The View Menu



The View Menu

If an option is checked, then that option is currently active.

- **Status Bar** - This option toggles the status bar (ON and OFF) at the bottom of the *Dispatch Desktop* window. If the check-mark is present, the status bar appears with the date and time and any other applicable information.

An example of the Status Bar and Design Mode.

- **Module Captions** - If this check-mark is present, captions are displayed. Also, the **Menu**, **Auto Hide**, and **Close** options are removed from the upper right of the module window as shown below.

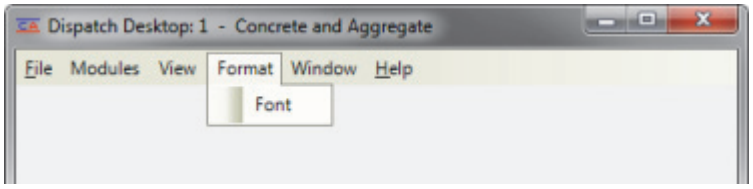
  ***Note**: If more than one module is open within a window, a tab appears for each module. This allows you to go back and forth between modules by selecting a tab.*

An example of Module Captions.

- **Design Mode** - A check-mark must appear next to **Design Mode** in the menu in order to customize columns, adjust the screen layout, and to manage filters. When ON, the status bar displays the text `DESIGN MODE` against an orange background as shown in the example above. To save your configuration for a later session, select {*File* > *Save Settings*}.

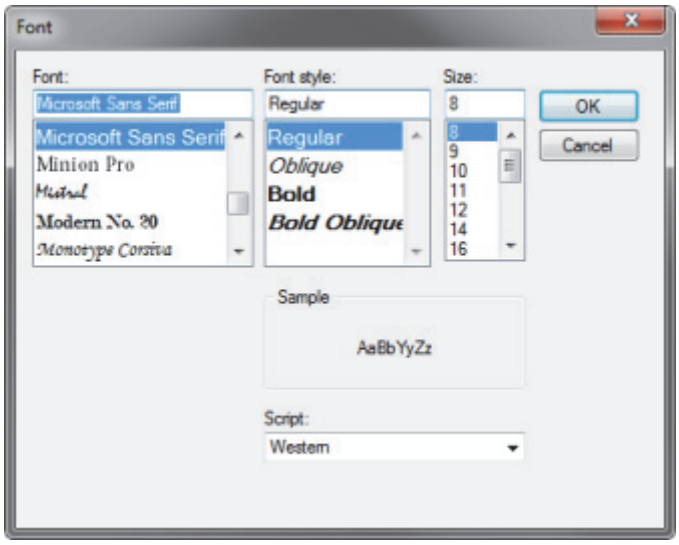
  ***Note**: This is only available to the configuration manager.*

The Format Menu



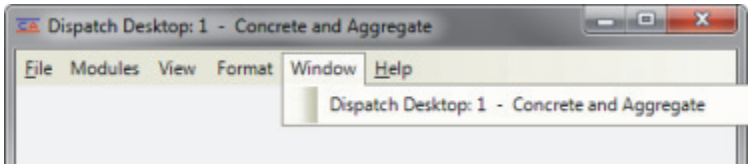
The Format Menu

- **Font** - This option opens a standard *Font* dialog box where you can select the font type, style, and size. The default font type is **Microsoft Sans Serif**, with a style of **Regular**, and a size of **8**.



An example of a standard Font dialog box.

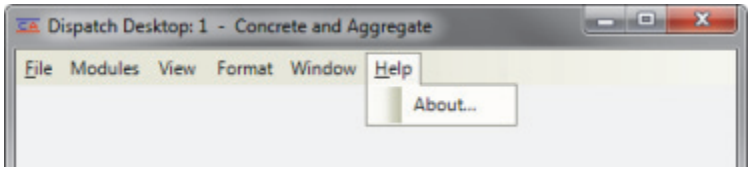
The Window Menu


Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Dispatch Desktop: 1 - Concrete and Aggregate

The Window Menu

This menu displays all the *Dispatch Desktop* windows that are currently open (not necessarily modules). To bring a window to the forefront (if there is more than one window open), select it from the list.

The Help Menu



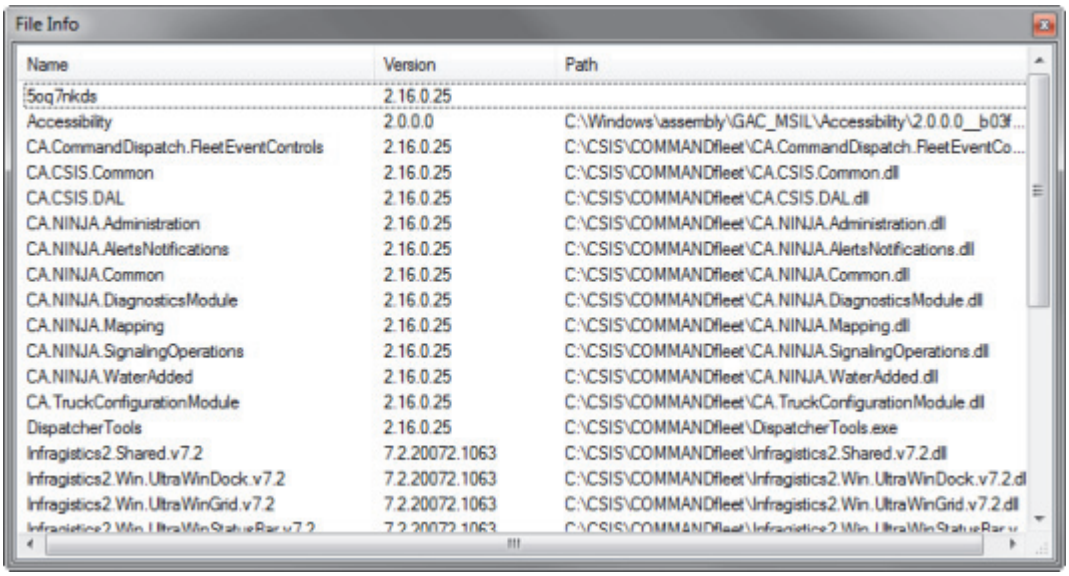
The Help Menu

This menu contains the standard *About* screen which gives you your COMMANDfleet version information.

COMMANDfleet
Version 2.16.0 Build 25
Built
Command Alkon Incorporated
1800 International Park Drive
Suite 400
Birmingham, AL 35243
Tel: 205.879.3282
www.commandalkon.com
Command Alkon
File Info...
Copyright © 2011 Command Alkon Incorporated. All Rights Reserved.
Warning: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution, of this program, or any portion of it, may result in severe civil and criminal penalties.

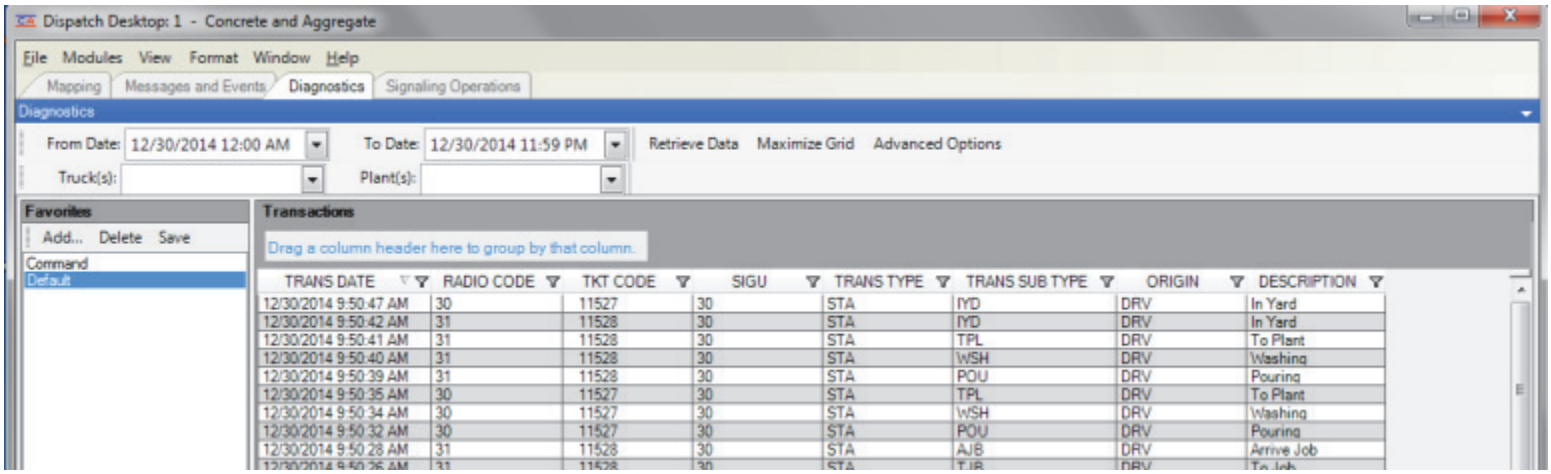
An example of the About screen for COMMANDfleet.

If you select the **File Info** button, a window that displays all the file versions within COMMANDfleet will open.



An example of the File Info window that displays when the File Info button is clicked.

Manipulating Module Columns

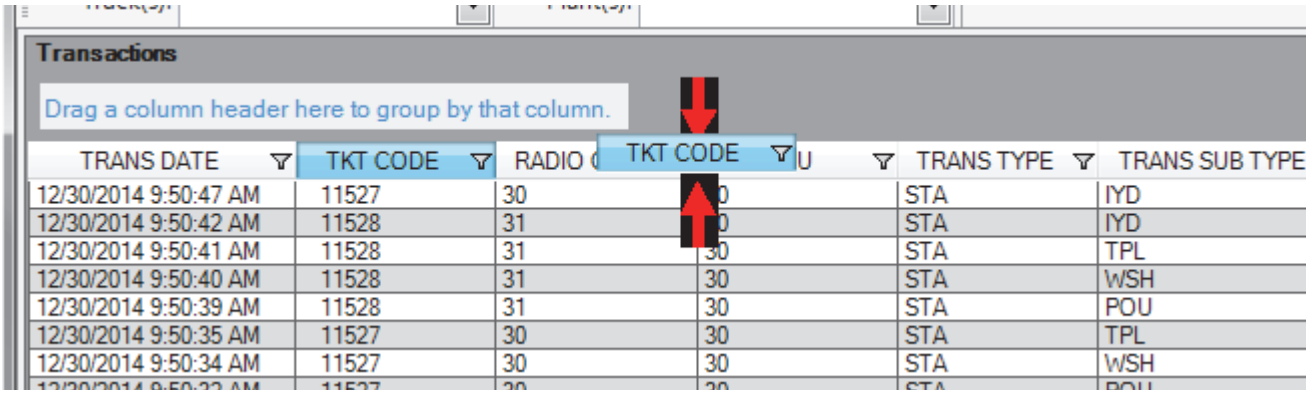

Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Mapping Messages and Events Diagnostics Signaling Operations
Diagnostics
From Date: 12/30/2014 12:00 AM
To Date: 12/30/2014 11:59 PM
Retrieve Data
Maximize Grid
Advanced Options
Truck(s):
Plant(s):
Favorites
Add... Delete Save
Command
Default
Transactions
Drag a column header here to group by that column.
TRANS DATE RADIO CODE TKT CODE SIGU TRANS TYPE TRANS SUB TYPE ORIGIN DESCRIPTION
12/30/2014 9:50:47 AM 30 11527 30 STA IYD DRV In Yard
12/30/2014 9:50:42 AM 31 11528 30 STA IYD DRV In Yard
12/30/2014 9:50:41 AM 31 11528 30 STA TPL DRV To Plant
12/30/2014 9:50:40 AM 31 11528 30 STA WSH DRV Washing
12/30/2014 9:50:39 AM 31 11528 30 STA POU DRV Pouring
12/30/2014 9:50:35 AM 30 11527 30 STA TPL DRV To Plant
12/30/2014 9:50:34 AM 30 11527 30 STA WSH DRV Washing
12/30/2014 9:50:32 AM 30 11527 30 STA POU DRV Pouring
12/30/2014 9:50:28 AM 31 11528 30 STA AJB DRV Arrive Job

An example of module columns.

Moving

If you need columns to display in a specific order, you may move a data column to another location by clicking the column header and dragging it. In the following example, a column is in the process of being moved to the right of another column. Red arrows let you know where the column will be located once you take your finger off the mouse.

> ***Note**: This can only be done in* Design Mode *(which is only available to configuration managers).*

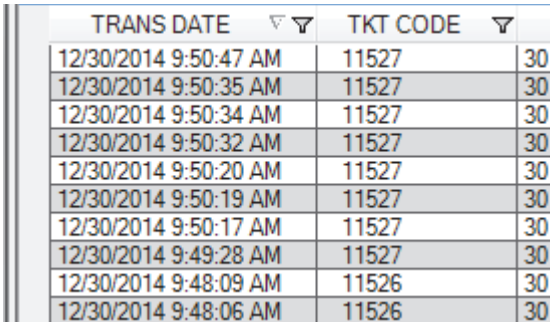

Transactions
Drag a column header here to group by that column.
TRANS DATE TKT CODE RADIO TKT CODE U TRANS TYPE TRANS SUB TYPE
12/30/2014 9:50:47 AM 11527 30 STA IYD
12/30/2014 9:50:42 AM 11528 31 STA IYD
12/30/2014 9:50:41 AM 11528 31 30 STA TPL
12/30/2014 9:50:40 AM 11528 31 30 STA WSH
12/30/2014 9:50:39 AM 11528 31 30 STA POU
12/30/2014 9:50:35 AM 11527 30 30 STA TPL
12/30/2014 9:50:34 AM 11527 30 30 STA WSH

An example of column moving.

Sorting

You may choose to sort columns in ascending or descending order. If you click on any column heading within the grid, all rows are sorted on that column in ascending order (an upward-facing triangle appears in the column heading). Click again and all rows will be

sorted in descending order (an downward-facing triangle appears in the column heading). For example, a triangle pointing up indicates the column is sorted in ascending order.

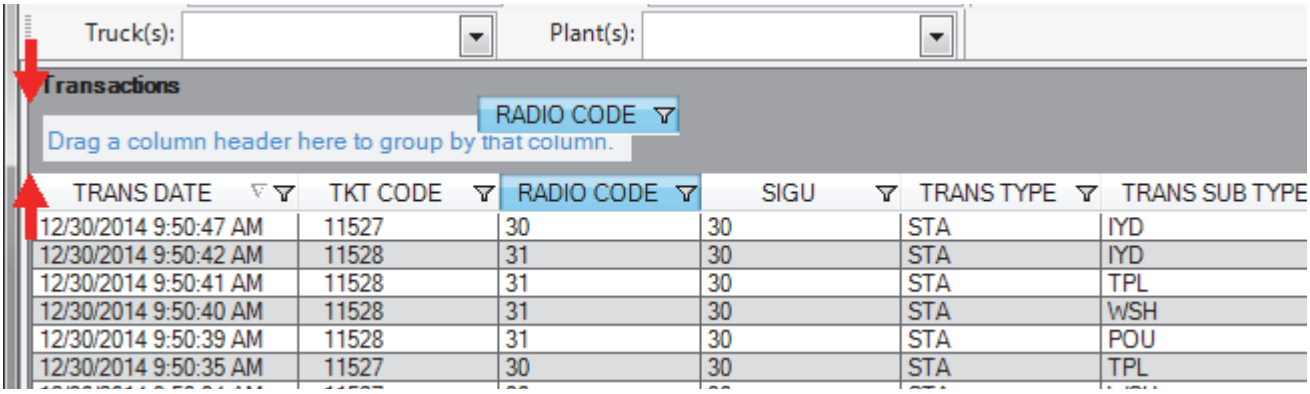


TRANS DATE	TKT CODE	
12/30/2014 9:50:47 AM	11527	30
12/30/2014 9:50:35 AM	11527	30
12/30/2014 9:50:34 AM	11527	30
12/30/2014 9:50:32 AM	11527	30
12/30/2014 9:50:20 AM	11527	30
12/30/2014 9:50:19 AM	11527	30
12/30/2014 9:50:17 AM	11527	30
12/30/2014 9:49:28 AM	11527	30
12/30/2014 9:48:09 AM	11526	30
12/30/2014 9:48:06 AM	11526	30

An example of column sorting.

Grouping

If you need to look at data for a particular group, you may do this by dragging any column header to the area labeled **Drag a column header here to group by that column.**The table is then grouped by that column. Click on the plus sign to expand the group's detail or the minus sign to hide the group's detail. To remove this sort option, drag the column name back to the table grid.

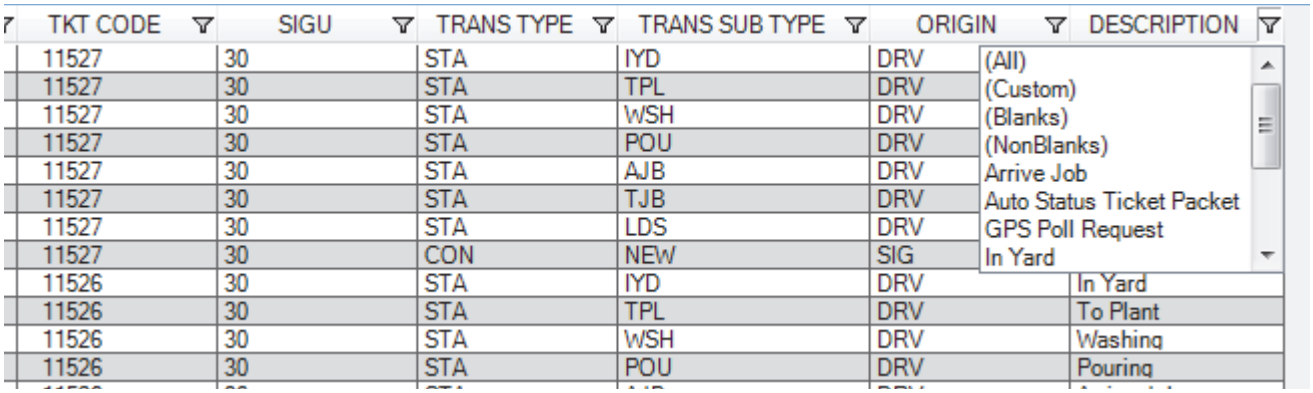


TRANS DATE	TKT CODE	RADIO CODE	SIGU	TRANS TYPE	TRANS SUB TYPE
12/30/2014 9:50:47 AM	11527	30	30	STA	IYD
12/30/2014 9:50:42 AM	11528	31	30	STA	IYD
12/30/2014 9:50:41 AM	11528	31	30	STA	TPL
12/30/2014 9:50:40 AM	11528	31	30	STA	WSH
12/30/2014 9:50:39 AM	11528	31	30	STA	POU
12/30/2014 9:50:35 AM	11527	30	30	STA	TPL

An example of column grouping.

Filtering

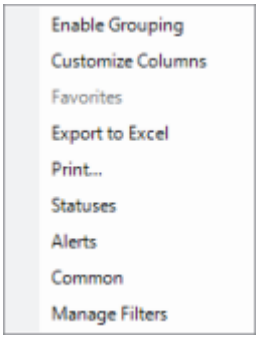
You may choose to have all data displayed (default), specific data displayed, or a customized filter. For filtering options, click the funnel icon to the right of any column heading.



An example of how to enter filter criteria.

- **All** - This option displays all items associated with the field you clicked on. This is the default filter.
- **Custom** - This option opens a custom filter criteria window. The funnel icon will turn blue to indicate that a filter has been set.
  - **And/Or conditions** - These two option buttons are applicable only when two or more conditions are set. With the AND condition, all conditions must be met to return a result set. With the OR condition, each condition can return a result set independent of the other conditions.
  - **Operator** - Select an operator, such as **Equals** or **Less Than**. The **Like** and **Matches Regular Expression** options are more advanced. More information on using these filters may be found in the Appendix section.
  - **Operand** - This is the entity the operator is working on. For example, with the condition Truck >= 1007, the operator is >= and the operand is 1007.
- **Blanks** - Displays only the rows that have no entries for the field you clicked on.
- **Non-Blanks** - Displays only the rows that have entries for the field you clicked on.
- **(Specific Item)**- Select a specific item (text or numeric) to display all occurrences of that item only.

Right-Click Context Menus

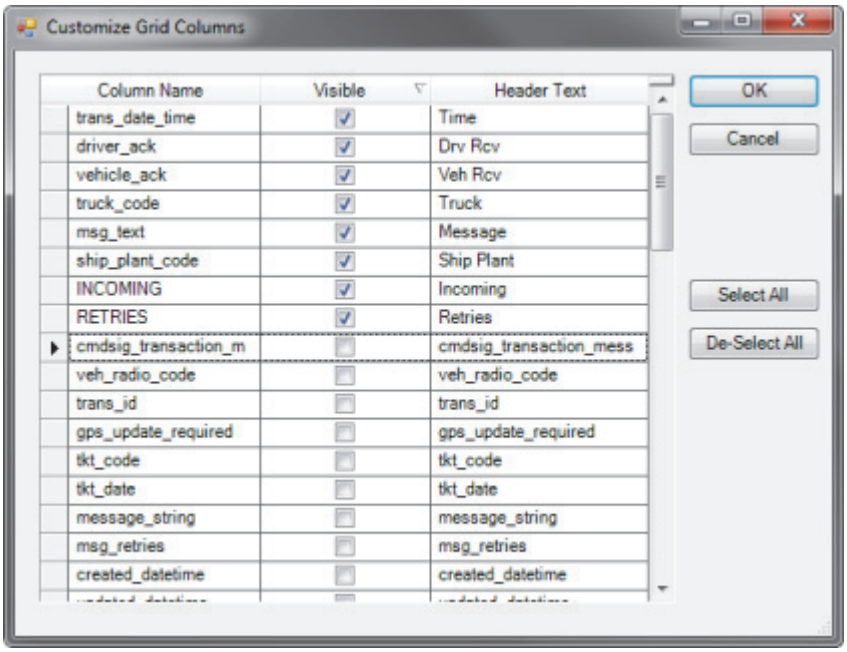


An example of the context menu when you right click in a module with columns.

If you right-click on any of the column headings on the *Diagnostics* or *Messages and Events* panes, you get one or more of the following context menu options:

- **Enable Grouping** - This option allows you to group a data set (such as trucks, plants, or time) by a particular data column.
  - Multiple groups are supported. For example, while reviewing numerous statuses for a day, you can select **Enable Grouping** for the **Truck Code** data column and view all statuses for each truck. Also, you can group the **From Plant** data column and then group by **Truck Code** to view each truck status by plant. To show more detail for a group, click the plus sign on the left. To disable the grouping, right-click again and deselect this option (or drag the button back to the grid).
- **Customize Columns** - This option opens a window where you can select which columns to display.

  ***Note**: This is only available in* Design Mode.



An example of the *Customize Grid Columns* screen.

  - **Visible** - Make individual selections by selecting or deselecting the checkbox on each row. The selected rows are visible and the deselected rows are hidden.
  - **Header Text** - This is the text that is shown in the grid header for that column and is editable. If you make changes, make sure that the name identifies the column.
  - **Select All / De-Select All** - These buttons allow for quick selections of all rows.
  - **OK** - When this button is clicked, all changes are applied immediately.
- **Favorites** - Save custom views with Customize Columns, Grouping, Filtering, and/or Sorting. Click **Add** and name the Favorite. **Organize** allows a user to rename/delete existing Favorites.

  ***Note**: This is only available for the* Diagnostics *pane.*
- **Export to Excel** - This option allows you to export a table to an Excel spreadsheet.

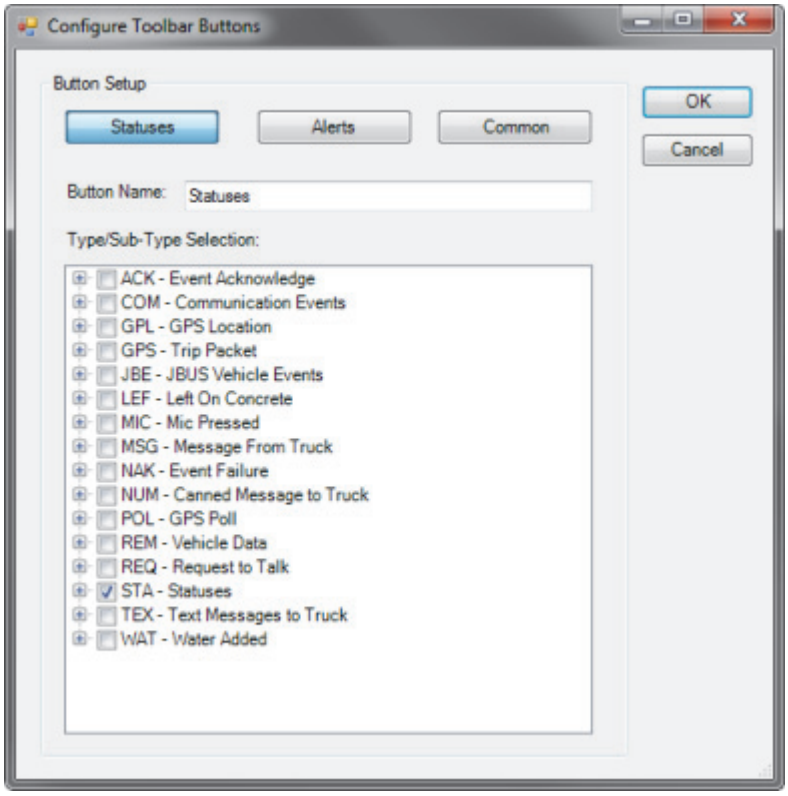
***Note**: This is available for configuration managers only.*

- **Print** - This option opens the *Print Preview* window where you view the tabular data. To send it to a printer, click the Print icon on the far left.

  ***Note**: This is available for configuration managers only.*

- **Manage Filters** - This allows you to configure the toolbar buttons.

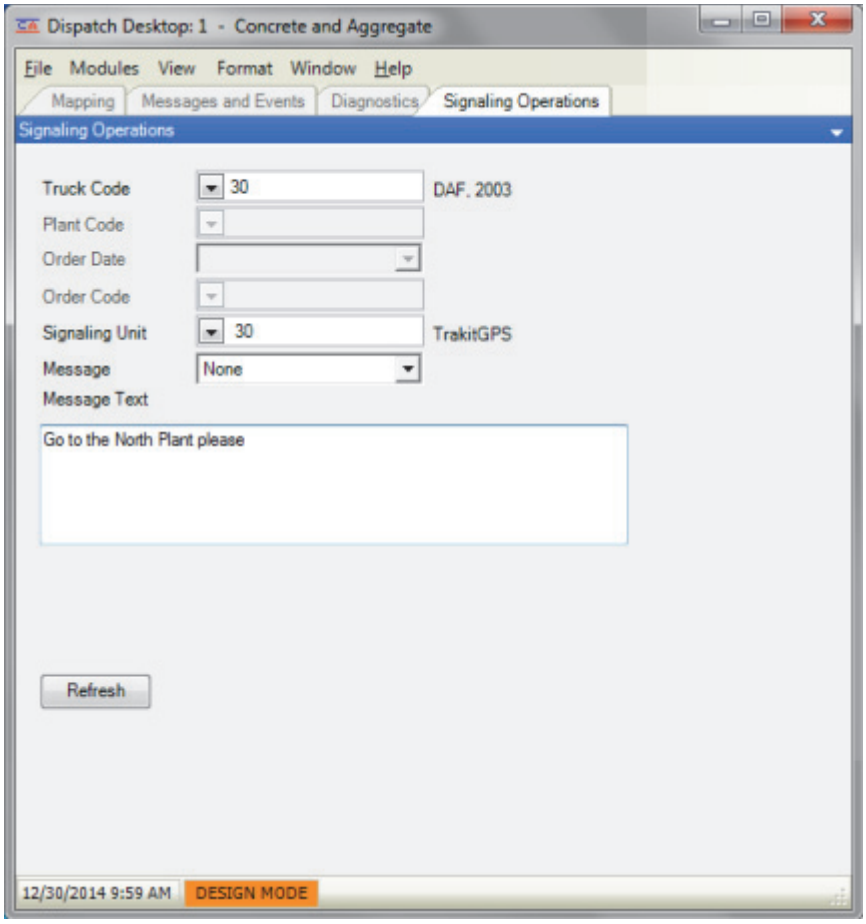
  ***Note**: This is available for configuration managers only.*



An example of the *Configure Toolbar Buttons* screen.

- **Button Setup** - Choose one of the three filter buttons that you want to customize.
- **Button Name** - You can keep the current name or rename the button in this text box. If you make changes, make sure that the name identifies the function.
- **Type/Sub-Type Selection** - Select the data to be displayed in this selection box. The plus sign to the left of this row is selected to display all the sub-types within the particular type. One or more sub-types may be selected to be displayed as. To select all sub-types, simply select the main type checkbox. To deselect all sub-types, clear the main type checkbox.
- **OK** - When this button is clicked, all changes are applied immediately.

Signaling Operations

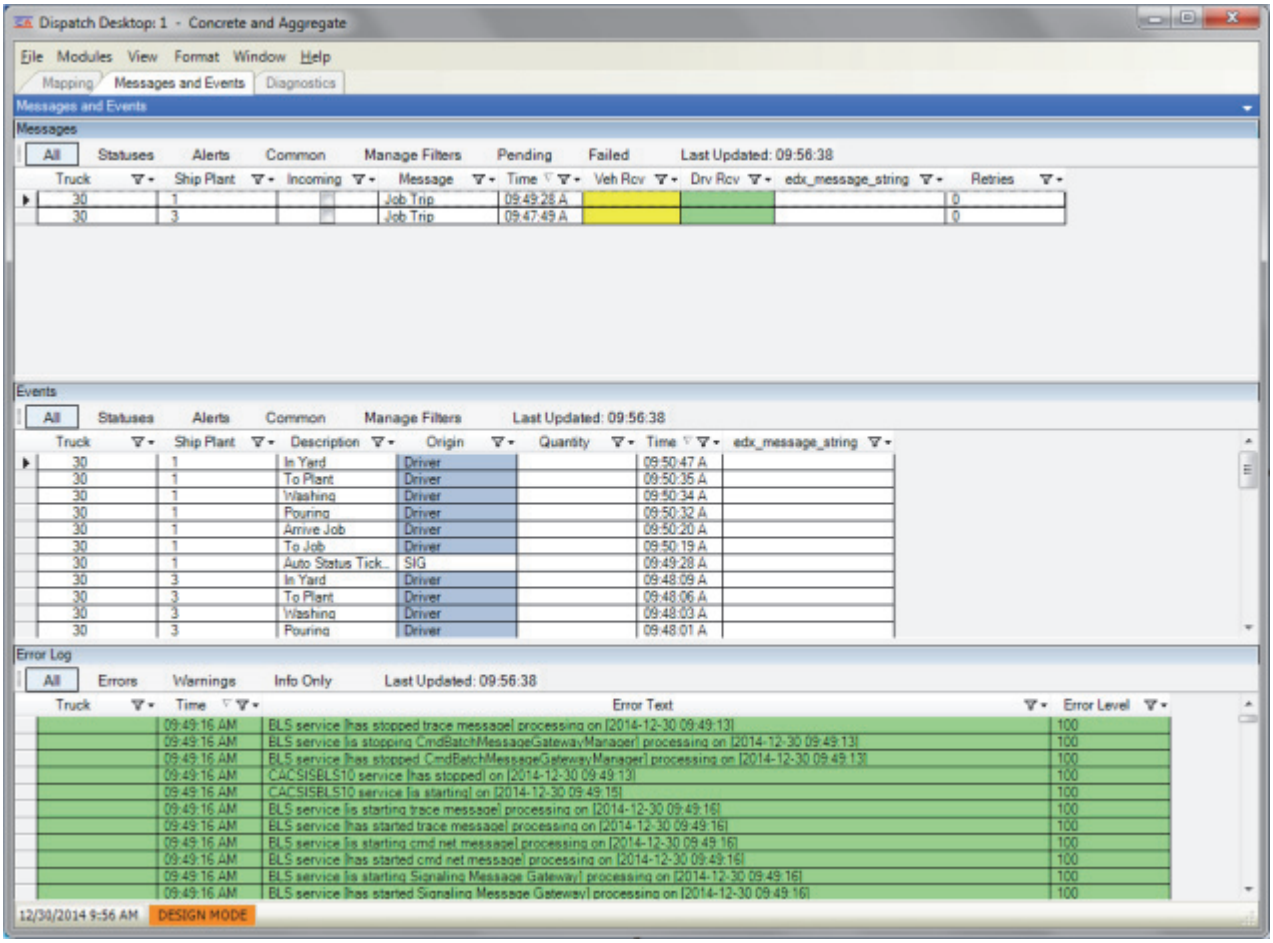


An example of the Signaling Operations module.

This module requires the MS - Mobile Signaling license. The fields on this screen are either active or inactive, depending on the values entered in other fields. For example, if a truck code is entered, the next three fields become inactive.

- **Truck Code** - Enter one or more truck codes (such as 100,101,102,106) or select one or more codes from the drop-down list. When selecting more than one code, you can use the Shift-click method to select contiguous items or use the Ctrl+click method to select non-contiguous items.
- **Signaling Unit**- The default signaling unit should appear here. If necessary, select a unit code from the drop-down list. If more than one truck is selected, this field may be inactive.
- **Message Text** - If necessary, enter additional text for the type of message selected in the **Message** field.

Messages and Events


Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Mapping Messages and Events Diagnostics
Messages and Events
Messages
All Statuses Alerts Common Manage Filters Pending Failed Last Updated: 09:56:38
Truck Ship Plant Incoming Message Time Veh Rcv Drv Rcv edx_message_string Retries
30 1 Job Trip 09:49:28 A 0
30 3 Job Trip 09:47:49 A 0
Events
All Statuses Alerts Common Manage Filters Last Updated: 09:56:38
Truck Ship Plant Description Origin Quantity Time edx_message_string
30 1 In Yard Driver 09:50:47 A
30 1 To Plant Driver 09:50:35 A
30 1 Washing Driver 09:50:34 A
30 1 Pouring Driver 09:50:32 A
30 1 Arrive Job Driver 09:50:20 A
30 1 To Job Driver 09:50:19 A
30 1 Auto Status Tick.. SIG 09:49:28 A
30 3 In Yard Driver 09:48:09 A
30 3 To Plant Driver 09:48:06 A
30 3 Washing Driver 09:48:03 A
30 3 Pouring Driver 09:48:01 A
Error Log
All Errors Warnings Info Only Last Updated: 09:56:38
Truck Time Error Text Error Level
09:49:16 AM BLS service [has stopped trace message] processing on [2014-12-30 09:49:13] 100
09:49:16 AM BLS service [is stopping CmdBatchMessageGatewayManager] processing on [2014-12-30 09:49:13] 100
09:49:16 AM BLS service [has stopped CmdBatchMessageGatewayManager] processing on [2014-12-30 09:49:13] 100
09:49:16 AM CACSISBLS10 service [has stopped] on [2014-12-30 09:49:13] 100
09:49:16 AM CACSISBLS10 service [is starting] on [2014-12-30 09:49:15] 100
09:49:16 AM BLS service [is starting trace message] processing on [2014-12-30 09:49:16] 100
09:49:16 AM BLS service [has started trace message] processing on [2014-12-30 09:49:16] 100
09:49:16 AM BLS service [is starting cmd net message] processing on [2014-12-30 09:49:16] 100
09:49:16 AM BLS service [has started cmd net message] processing on [2014-12-30 09:49:16] 100
09:49:16 AM BLS service [is starting Signaling Message Gateway] processing on [2014-12-30 09:49:16] 100
09:49:16 AM BLS service [has started Signaling Message Gateway] processing on [2014-12-30 09:49:16] 100
12/30/2014 9:56 AM DESIGN MODE

An example of the Messages and Events module.

The Messages and Events module will hold information for about an hour before it is automatically dropped off the screen.

Messages Pane

This form keeps you up-to-date on all current messages in the system.

> ***Note**: There is a common color code for messages. Messages with a red background have been sent but not received; a yellow background indicates the vehicle has received the message; a green background means the driver has acknowledged receiving the message.*

- **All** - Select this button to display all messages or events.
- **Statuses / Alerts / Common** - There are three configurable buttons. To change labels and specify the actions for the three buttons, click the **Manage Filters** button.
- **Manage Filters** - Click this button to open the *Configure Toolbar Buttons* form.

  > ***Note**: This is available for configuration managers in* Design Mode *only.*
- **Pending** - Click this button to display all pending messages. A dispatcher may want to know which messages have not been delivered and may not get delivered in a

reasonable time frame. It also helps to understand, from a diagnostic perspective, which vehicles are not communicating.

- **Failed** - Click this button to display all failed messages. Some messages are very important while other messages are critical to dispatch functioning. The dispatcher needs to know which messages failed and will not reach the driver. A determination can then be made on how to proceed. This also helps you determine whether or not the driver is accountable for receiving the message.

Events Pane

This window contains all incoming messages in the system.

- **All** - Select this button to display all messages or events.
- **Statuses / Alerts / Common** - There are three configurable buttons. To change labels and specify the actions for the three buttons, click the **Manage Filters** button.
- **Manage Filters** - Click this button to open the *Configure Toolbar Buttons* form.

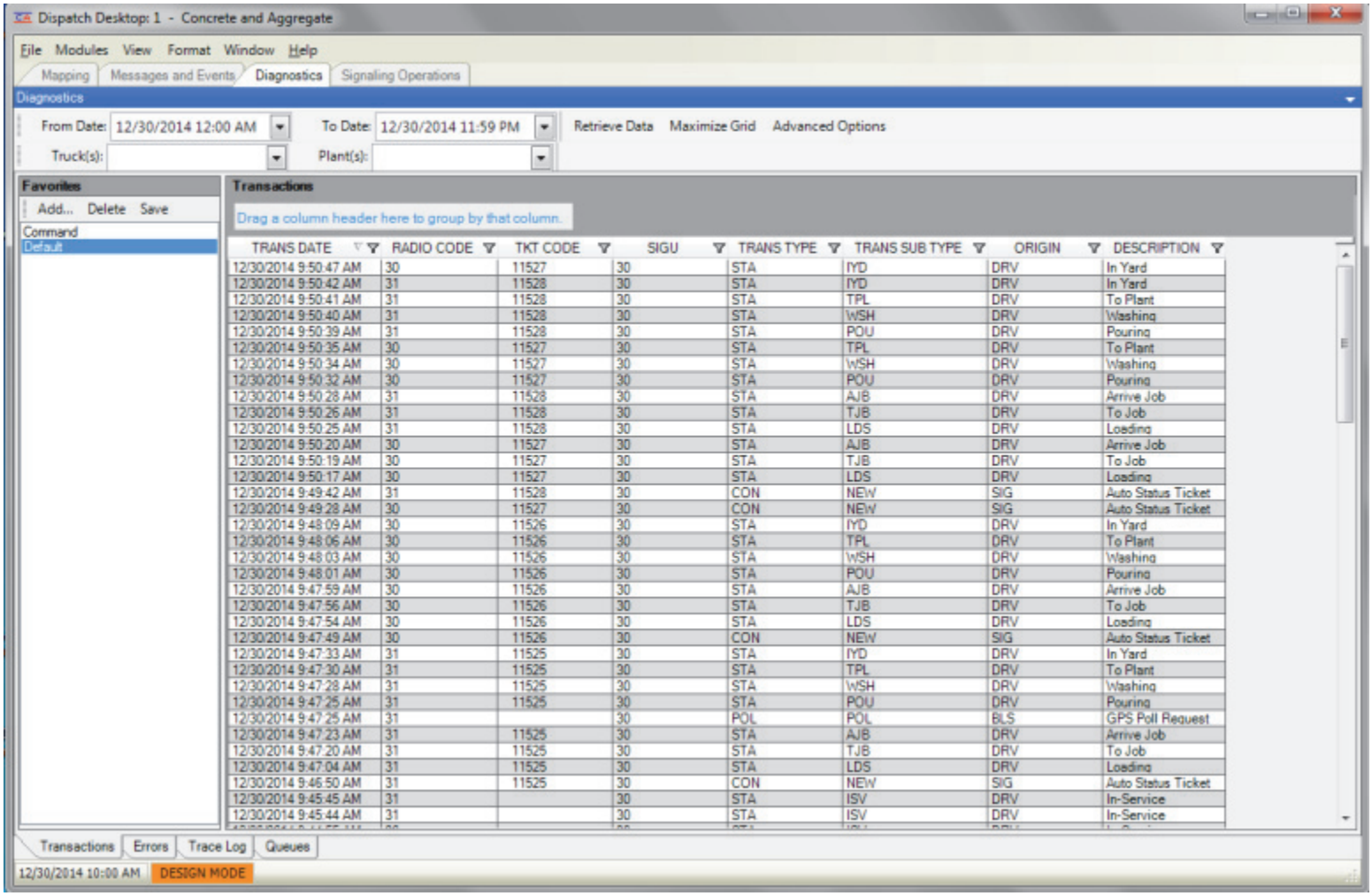
> ***Note**: This is available for configuration managers in* Design Mode *only.*

Error Log Pane

This window displays any or all errors according to the filter criteria.

- **All** - Select this button to display all error logs.
- **Errors** - Select this button to show just the errors.
- **Warnings** - Select this button to show just the warnings.
- **Info Only** - Select this button to show just the INFO rows.

Diagnostics


Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Mapping Messages and Events Diagnostics Signaling Operations
Diagnostics
From Date: 12/30/2014 12:00 AM
To Date: 12/30/2014 11:59 PM
Retrieve Data
Maximize Grid
Advanced Options
Truck(s):
Plant(s):
Favorites
Add... Delete Save
Command
Default
Transactions
Drag a column header here to group by that column.
TRANS DATE RADIO CODE TKT CODE SIGU TRANS TYPE TRANS SUB TYPE ORIGIN DESCRIPTION
12/30/2014 9:50:47 AM 30 11527 30 STA IYD DRV In Yard
12/30/2014 9:50:42 AM 31 11528 30 STA IYD DRV In Yard
12/30/2014 9:50:41 AM 31 11528 30 STA TPL DRV To Plant
12/30/2014 9:50:40 AM 31 11528 30 STA WSH DRV Washing
12/30/2014 9:50:39 AM 31 11528 30 STA POU DRV Pouring
12/30/2014 9:50:35 AM 30 11527 30 STA TPL DRV To Plant
12/30/2014 9:50:34 AM 30 11527 30 STA WSH DRV Washing
12/30/2014 9:50:32 AM 30 11527 30 STA POU DRV Pouring
12/30/2014 9:50:28 AM 31 11528 30 STA AJB DRV Arrive Job
12/30/2014 9:50:26 AM 31 11528 30 STA TJB DRV To Job
12/30/2014 9:50:25 AM 31 11528 30 STA LDS DRV Loading
12/30/2014 9:50:20 AM 30 11527 30 STA AJB DRV Arrive Job
12/30/2014 9:50:19 AM 30 11527 30 STA TJB DRV To Job
12/30/2014 9:50:17 AM 30 11527 30 STA LDS DRV Loading
12/30/2014 9:49:42 AM 31 11528 30 CON NEW SIG Auto Status Ticket
12/30/2014 9:49:28 AM 30 11527 30 CON NEW SIG Auto Status Ticket
12/30/2014 9:48:09 AM 30 11526 30 STA IYD DRV In Yard
12/30/2014 9:48:06 AM 30 11526 30 STA TPL DRV To Plant
12/30/2014 9:48:03 AM 30 11526 30 STA WSH DRV Washing
12/30/2014 9:48:01 AM 30 11526 30 STA POU DRV Pouring
12/30/2014 9:47:59 AM 30 11526 30 STA AJB DRV Arrive Job
12/30/2014 9:47:56 AM 30 11526 30 STA TJB DRV To Job
12/30/2014 9:47:54 AM 30 11526 30 STA LDS DRV Loading
12/30/2014 9:47:49 AM 30 11526 30 CON NEW SIG Auto Status Ticket
12/30/2014 9:47:33 AM 31 11525 30 STA IYD DRV In Yard
12/30/2014 9:47:30 AM 31 11525 30 STA TPL DRV To Plant
12/30/2014 9:47:28 AM 31 11525 30 STA WSH DRV Washing
12/30/2014 9:47:25 AM 31 11525 30 STA POU DRV Pouring
12/30/2014 9:47:25 AM 31 30 POL POL BLS GPS Poll Request
12/30/2014 9:47:23 AM 31 11525 30 STA AJB DRV Arrive Job
12/30/2014 9:47:20 AM 31 11525 30 STA TJB DRV To Job
12/30/2014 9:47:04 AM 31 11525 30 STA LDS DRV Loading
12/30/2014 9:46:50 AM 31 11525 30 CON NEW SIG Auto Status Ticket
12/30/2014 9:45:45 AM 31 30 STA ISV DRV In-Service
12/30/2014 9:45:44 AM 31 30 STA ISV DRV In-Service
Transactions Errors Trace Log Queues
12/30/2014 10:00 AM
DESIGN MODE

An example of the Diagnostics module.

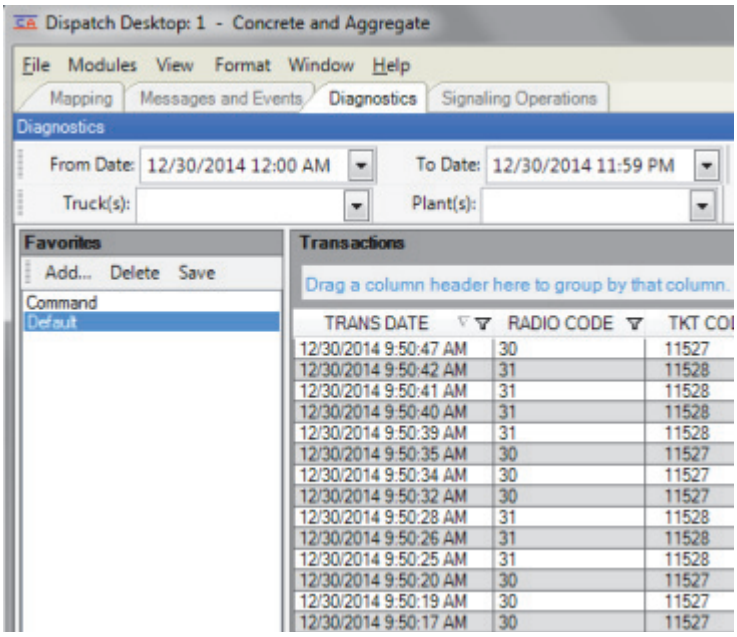
This module retrieves historical data for troubleshooting and proactive detecting of signaling issues. It allows you to review Messages, Events, Errors, GPS, JBUS, JBUS Threshold, and Water Added information. The Transactions pane is the main area for your pertinent data. The data in the grid is determined by the search criteria and the view (**Transactions**, **Errors**, **Trace Log**, or **Queues** tab).

- **From Date / To Date** - These two fields allow you to restrict the data shown to a certain range of dates and times.
- **Trucks** - From this dropdown list, select one or more trucks to narrow the list of retrieved data. To select more than one truck, Ctrl+click non-contiguous items or Shift-Click a contiguous range of items.
- **Plants** - From this drop-down list, select one or more plants to narrow the list of retrieved data. To select more than one plant, Ctrl+click non-contiguous items or Shift+click a contiguous range of items.
- **Retrieve Data** - Click this button to retrieve the data according to the selected search criteria.

- **Maximize Grid** - Click this button to hide the left Favorites pane. Click again to restore the left pane.
- **Advanced Options** - Click this button to enter a limit for the number of rows shown on the table for quicker access.

Favorites Pane

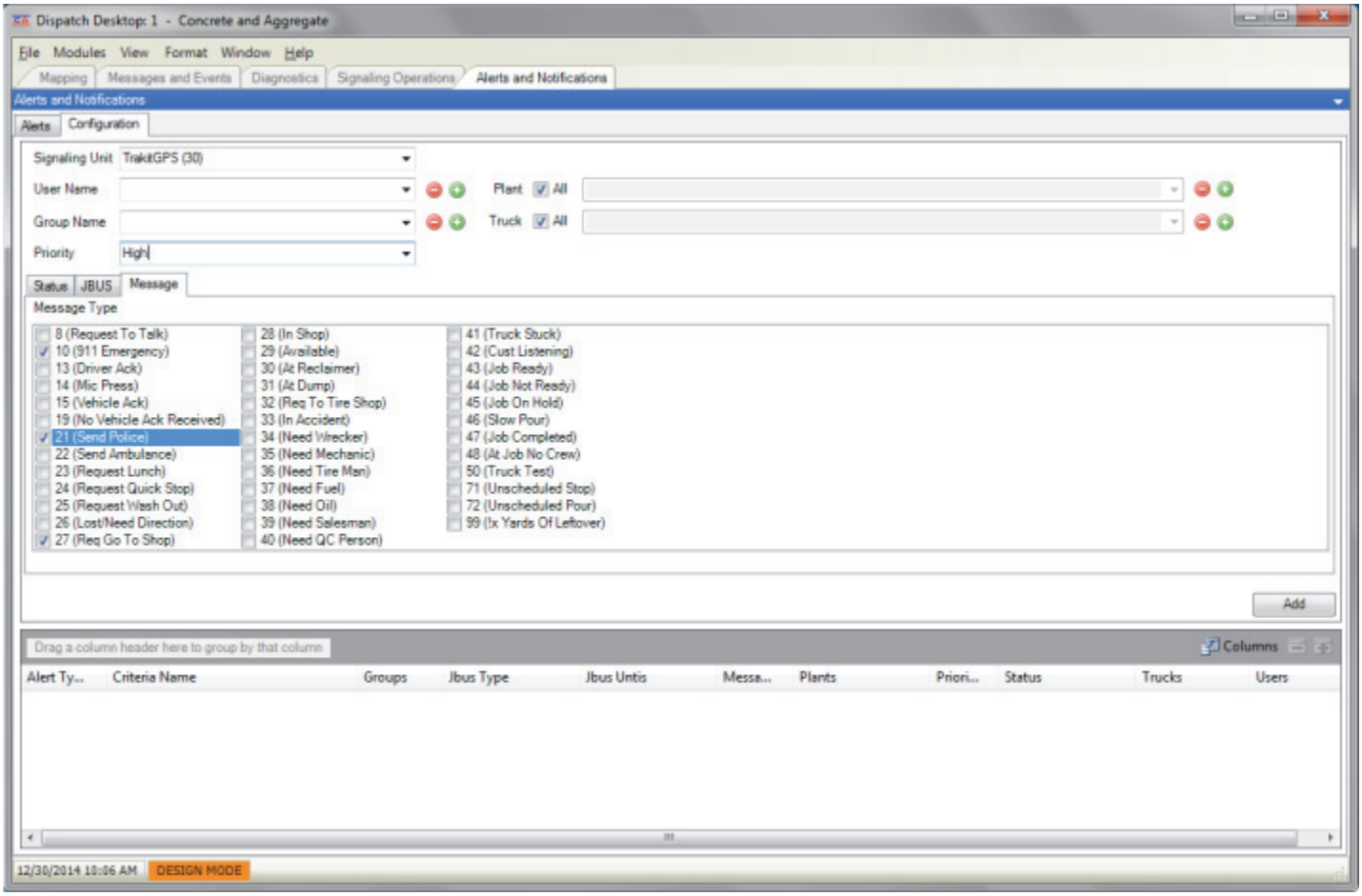
The Favorites pane on the left starts with just **Default** as the only favorite.



An example of the Favorites pane.

- **Add** - To add a favorite, click this button and enter a name to add to your Favorites list.
- **Delete** - To delete a favorite, select it and click this button. A confirmation message asks if really want to delete this favorite.
- **Save** - To save your changes, click this button.

Alerts and Notifications



An example of the Alerts tab for the Alerts and Notifications module.

This module provides the Dispatcher and Fleet Manager the capability to monitor real time priority messages, statuses, and event notifications received from trucks when used as part of the dispatcher tools in COMMANDseries.

Alerts Tab

- **Refresh** - This button forces a refresh of the messages grid ahead of the configured polling period.

The grid displays the current (24 hours) view of alerts into the system. A few of the grid columns are defined as follows:

- **Acknowledged Users** - The first user to acknowledge the message. If more than one user acknowledges the message, only the first user is logged.
- **Acknowledged Time** - The time that the message was acknowledged.
- **Elapsed Time** - The amount of time in minutes from the time the message was received from the system (BLS) and the time it took for a user to acknowledge the message.

Configuration Tab

This tab allows you to list all incoming messages (canned and free-text) and to select specific messages as alerts.

- **Signaling Unit** - Select a signaling unit from this dropdown list.
- **User Name / Group Name** - Select one or more items from the dropdown list (select the checkbox next to each user name). After selections have been made, click outside the dropdown list box to return to the form.
  - *Plus* (Select All) - Add all items from the drop-down list (this is not recommended for a standard configuration).
  - *Minus* (Clear All) - Remove all items from the list.
- **Priority** - Select from the following options:
  - *High* - Displays a prompt that remains on screen until acknowledged. The user cannot continue other work until receipt of the message is acknowledged.
  - *Medium* - Displays a prompt that remains on screen until receipt is acknowledged. The user can continue with other work.
  - *Low* - Temporarily displays a message box for a user-configurable time period and then disappears. The user can continue with other work.
- **Plant / Truck** - If the **All** checkbox is selected, all plants/trucks are included in this configuration. If this checkbox is cleared, the dropdown list becomes active. Select one or more of the checkboxes next to each plant/truck.
- **Add** - Click this button to submit the configuration criteria to the server for processing.
- **Update** - Click this button to update the current criteria to a new configuration. Once selected, the only available button is the "Add" button.
- **Delete** - Click this button to permanently remove the criteria from the alert process.
- **Cancel** - Click this button to cancel and roll back any changes made prior to clicking a delete or update button.
- **(Grid Row)** - Clicking on a row in the grid causes the specific configuration to be loaded, filling the items in the configuration area. The **Add** button is hidden and the **Cancel**, **Delete**, and **Update** buttons become available.

Under the **Status** tab, select one or more of the status items to be included in the alert.

The **JBUS** tab lists all incoming JBUS events and allows the User to select and subscribe to specific JBUS Events This tab is used to set up the JBUS configuration:

- **Description** - Select a description that corresponds to the JBus event that you wish to be notified.
- **Units** - From this dropdown list, select a unit type that is based on the description selected.
- **Threshold** - The minimum or maximum value is set in this numeric field. If you enter a value that is above the maximum (the **Above** option must be selected) or below the minimum (the **Below** option must be selected), the field will default to the appropriate minimum or maximum value.

*Note: This is only enabled when the **Units** field is selected.*

- **Duration** - This numeric field sets the duration for the **Threshold** value.

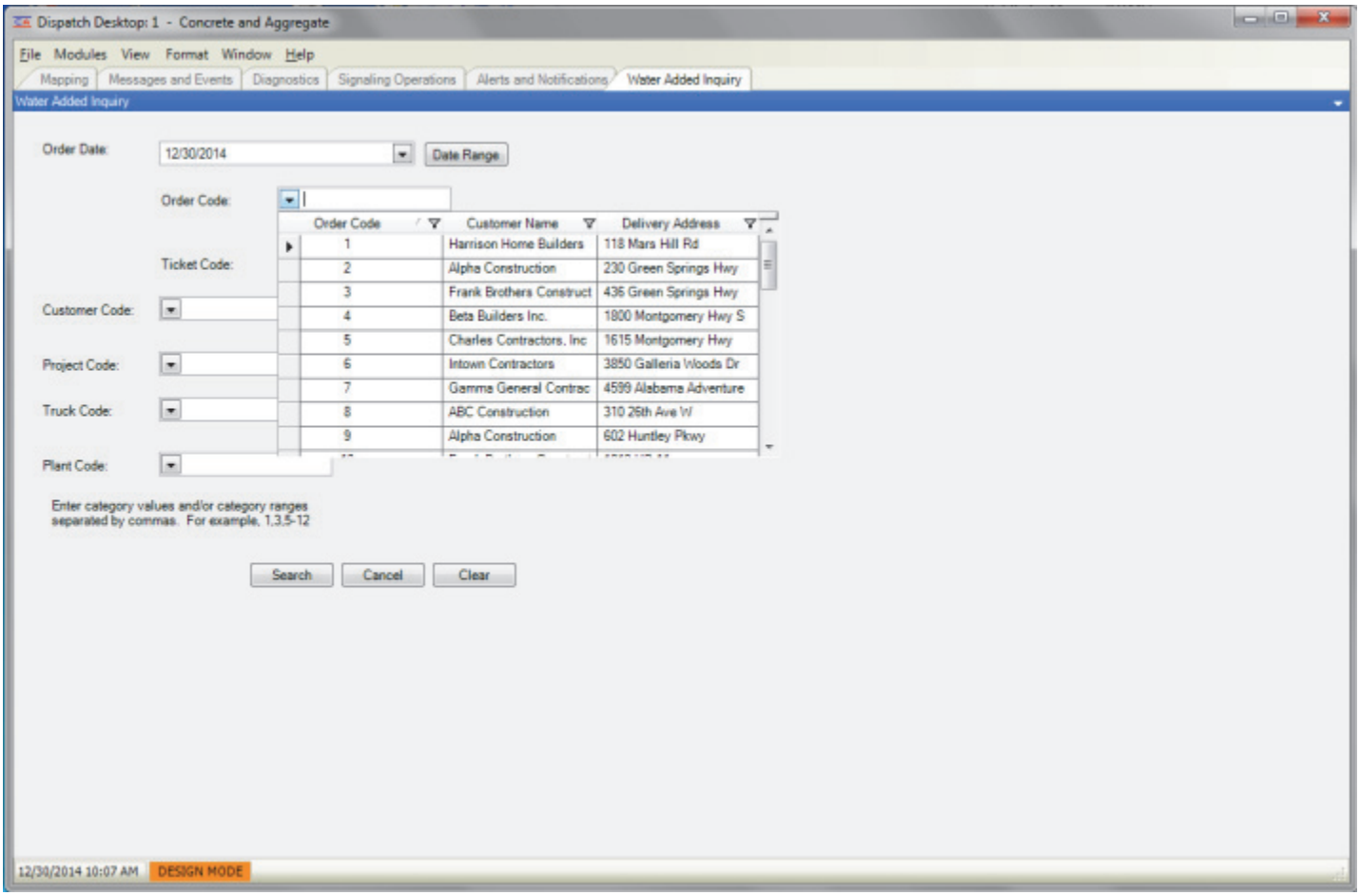
  *Note: This is only enabled when the **Units** field is selected.*

Under the **Message** tab, you can select (subscribe to) one or more specific **Message Types** to be included in the alert.

Alert Messages

If multiple screen prompts are displayed concurrently, they are to be prioritized by prompt time (earliest to latest) within Priority (High to Low). The screen prompts requiring receipt acknowledgment (Priority High and Medium) display the following information: Truck Code, Time Received, Message/Event/Status notification, and an OK button to acknowledge receipt. The screen prompt not requiring receipt acknowledgment (Priority Low) displays the following information: Truck Code, Time Received, and Message/Event/Status notification.

Water Added Inquiry


Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Mapping Messages and Events Diagnostics Signaling Operations Alerts and Notifications Water Added Inquiry
Water Added Inquiry
Order Date:
12/30/2014
Date Range
Order Code:
Ticket Code:
Customer Code:
Project Code:
Truck Code:
Plant Code:
Order Code
Customer Name
Delivery Address
1 Harrison Home Builders 118 Mars Hill Rd
2 Alpha Construction 230 Green Springs Hwy
3 Frank Brothers Construct 436 Green Springs Hwy
4 Beta Builders Inc. 1800 Montgomery Hwy S
5 Charles Contractors, Inc 1615 Montgomery Hwy
6 Intown Contractors 3850 Galleria Woods Dr
7 Gamma General Contrac 4599 Alabama Adventure
8 ABC Construction 310 26th Ave W
9 Alpha Construction 602 Huntley Pkwy
Enter category values and/or category ranges separated by commas. For example, 1,3,5-12
Search
Cancel
Clear
12/30/2014 10:07 AM
DESIGN MODE

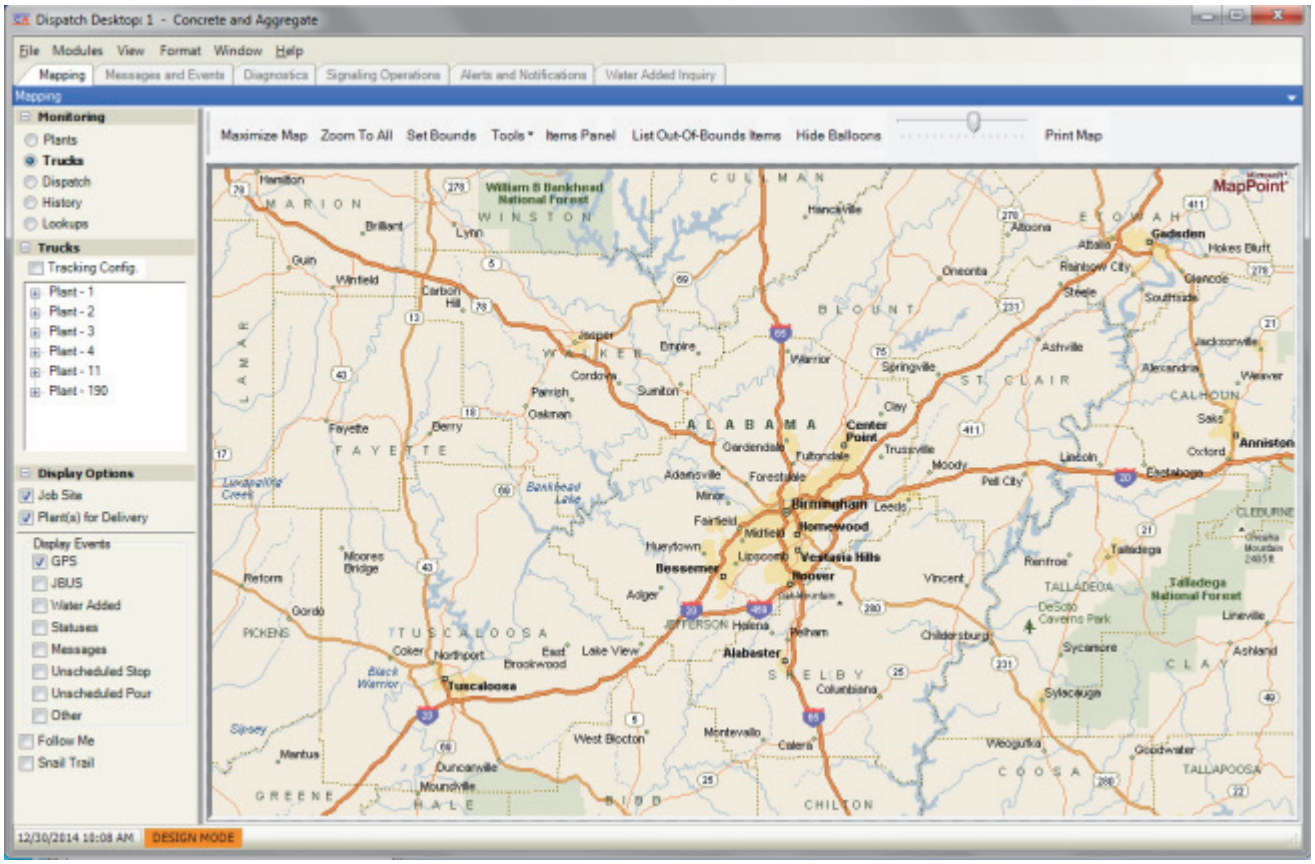
An example of the Water Added Inquiry module.

In addition to the Water Added (WA) license, water meters are required for this module. Using this module, you can retrieve Water Added Events by Order Date/Code, Ticket

Code, Customer Code, Project Code, Truck Code, and/or Plant Code. You can review the Water Added Event information by the:

- Batch
- Adjustment Water – This is water added after Loading and before Pouring.
- Placement Water – This is water added during the Pouring and Wash status.

Mapping



An example of the Mapping module.

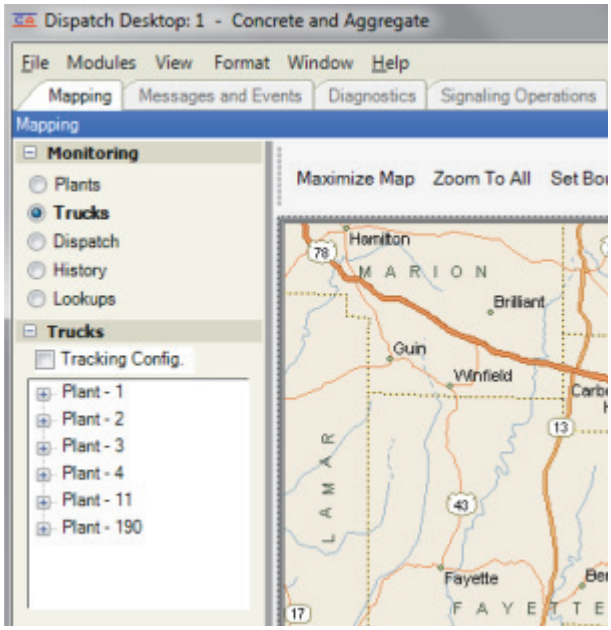
This module requires the MO - Map Order Entry and/or the MT - Map Truck Tracking licenses (if Snail Trail is used, the ST license is also required).

> ***Note**: The mapping pane contains a map which is displayed by your third-party mapping software. On this pane, the map and the toolbar above it have differences based on the map selected in the configuration console. The maps themselves look similar, but the context menus and toolbars are very different. Also, the icons are not the same, such as different symbols for GPS on truck snail trail and slightly different colors for trucks and some indicators.*

Monitoring Group

On the top left of the Mapping window, you can select from one of the following items for monitoring: **Trucks**, **Dispatch**, **Deliveries**, or **Lookups**. The controls (such as options

and checkboxes) that display below this group depend on the selection here. Only the selected option will have its group of controls visible.

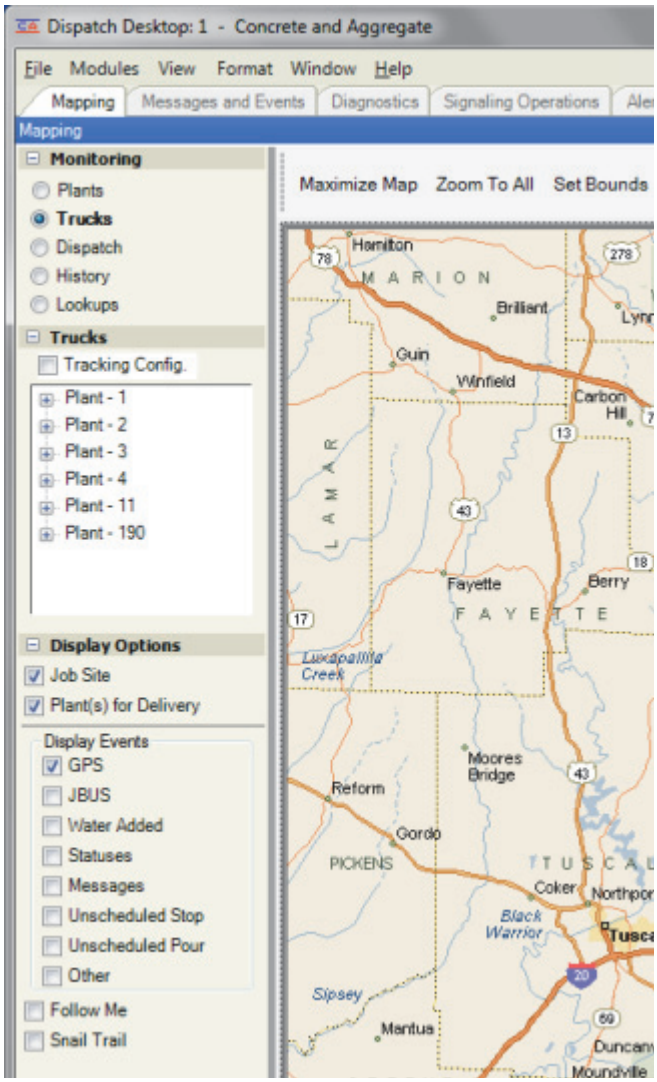


Monitoring Group

- **Trucks** - This is the default monitoring group.
- **Dispatch** - This is automatically selected when **Truck Locate** is initiated from the COMMANDseries Tracking & Scheduling screen.
- **History** - This option is chosen for an historical snail trail of where a truck has been. If you click the down arrow to the right of **Truck Search Criteria**, a search screen appears where you can set criteria such as a date range and codes for customers, projects, orders, tickets, plants, and trucks.
- **Lookups** - This option allows you to get the best routing information from the mapping tool. Select **Show Shortest Route** or **Show Best Route** depending on your needs.

Display Options Group

Click the plus sign on the left to see all the display options. To roll it back up, click the minus sign. You can select **Job Site** and/or **Plants for Delivery**, depending on what you want to appear on the map.

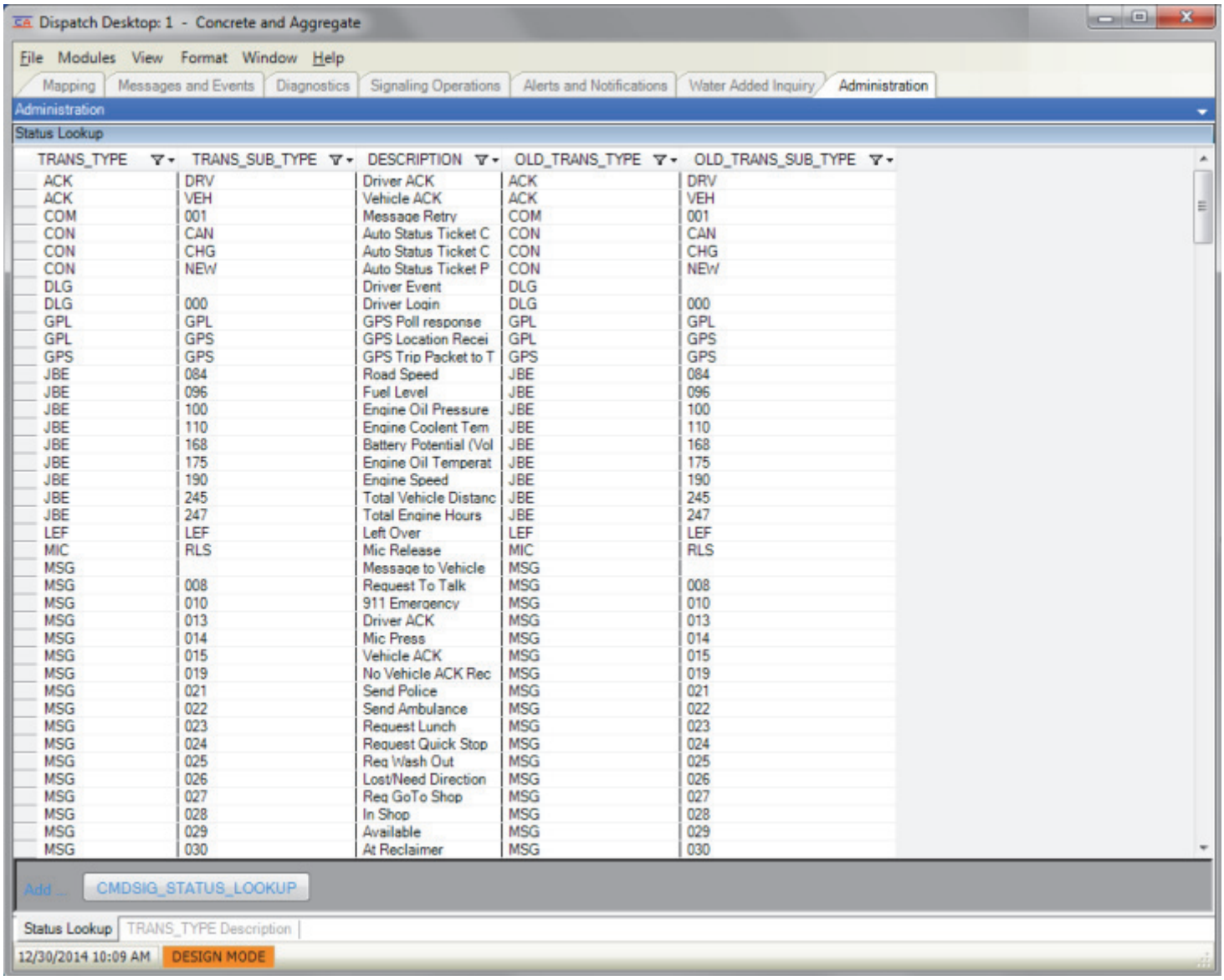


Display Options Group

- **Follow Me** - If this checkbox is selected, the selected truck (or trucks) are shown on the map. This function automatically displays chosen events on the map as they are received in the database.
- **Snail Trail** - If this button is selected, the path of the selected trucks are shown on the map. You can also select any of the following checkboxes to add more event details to the snail trail: JBUS, Water Added, Statuses, Messages, Unscheduled Stop, Unscheduled Pour, Other.

Administration

***Note**: This module is available for configuration managers only.*

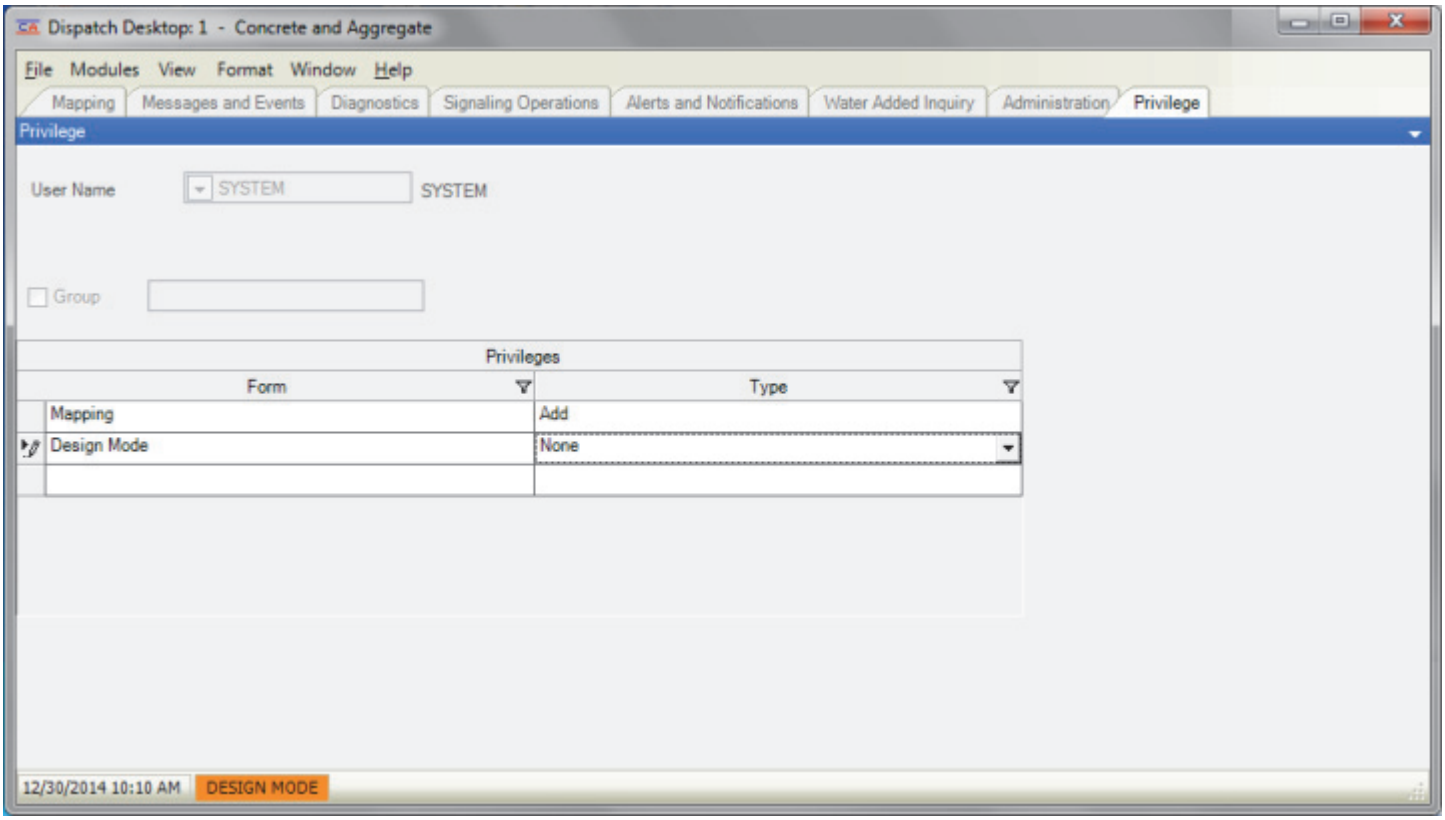

Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Mapping Messages and Events Diagnostics Signaling Operations Alerts and Notifications Water Added Inquiry Administration
Administration
Status Lookup
TRANS_TYPE TRANS_SUB_TYPE DESCRIPTION OLD_TRANS_TYPE OLD_TRANS_SUB_TYPE
ACK DRV Driver ACK ACK DRV
ACK VEH Vehicle ACK ACK VEH
COM 001 Message Retry COM 001
CON CAN Auto Status Ticket C CON CAN
CON CHG Auto Status Ticket C CON CHG
CON NEW Auto Status Ticket P CON NEW
DLG Driver Event DLG
DLG 000 Driver Login DLG 000
GPL GPL GPS Poll response GPL GPL
GPL GPS GPS Location Recei GPL GPS
GPS GPS GPS Trip Packet to T GPS GPS
JBE 084 Road Speed JBE 084
JBE 096 Fuel Level JBE 096
JBE 100 Engine Oil Pressure JBE 100
JBE 110 Engine Coolent Tem JBE 110
JBE 168 Battery Potential (Vol JBE 168
JBE 175 Engine Oil Temperat JBE 175
JBE 190 Engine Speed JBE 190
JBE 245 Total Vehicle Distanc JBE 245
JBE 247 Total Engine Hours JBE 247
LEF LEF Left Over LEF LEF
MIC RLS Mic Release MIC RLS
MSG Message to Vehicle MSG
MSG 008 Request To Talk MSG 008
MSG 010 911 Emergency MSG 010
MSG 013 Driver ACK MSG 013
MSG 014 Mic Press MSG 014
MSG 015 Vehicle ACK MSG 015
MSG 019 No Vehicle ACK Rec MSG 019
MSG 021 Send Police MSG 021
MSG 022 Send Ambulance MSG 022
MSG 023 Request Lunch MSG 023
MSG 024 Request Quick Stop MSG 024
MSG 025 Req Wash Out MSG 025
MSG 026 Lost/Need Direction MSG 026
MSG 027 Req GoTo Shop MSG 027
MSG 028 In Shop MSG 028
MSG 029 Available MSG 029
MSG 030 At Reclaimer MSG 030
Add ...
CMDSIG_STATUS_LOOKUP
Status Lookup
TRANS_TYPE Description
12/30/2014 10:09 AM
DESIGN MODE

Administration Module

This module is used for troubleshooting XML messages for 3rd party vendors and interfaces. It contains information for XML tags such as definitions, expected strings, setup and the basic structure of messages. Command Alkon Service Personnel use this module to do advanced research on XML structure.

Privilege

***Note**: This module is only available to configuration managers.*



Privilege Module

This module is used to set user privileges. These users are the same as COMMANDseries users. Initially, user access is limited to Plant Privilege so you will need to configure the desktop to expand privileges to your users.

***Note**: This module CANNOT be used to edit existing users and cannot be changed once set.*

1. From the drop-down list, choose a **User Name** or **Group**. This must be a valid user name from the COMMANDseries database. If a group is selected, the Group check box will be marked.
2. Choose a **Form** on the left and the **Type** of privilege (**Add**, **None**) on the right. The following is a breakdown of all options currently allowed in the Privilege module. They are grouped by task category as to who might have them and their purpose; what is required depends on the duties of the person.

Privileges for Normal Operations

- **Mapping** – The map module contains the following sub-options (license permitting):
  - **Mapping – Snail Trail** – Allows the snail trail for trucks.
  - **Mapping – Truck** – Allows for the truck map location.
  - **Mapping – Delivery** – Allows for the delivery-location GPS coordinate mapping.
- **Signaling Operations** – Allows messages to be sent to trucks.
- **Messages and Events** – Allows the Messages/Events/Errors module.
- **Water Added Inquiry** - Allows if water added functionality is necessary.

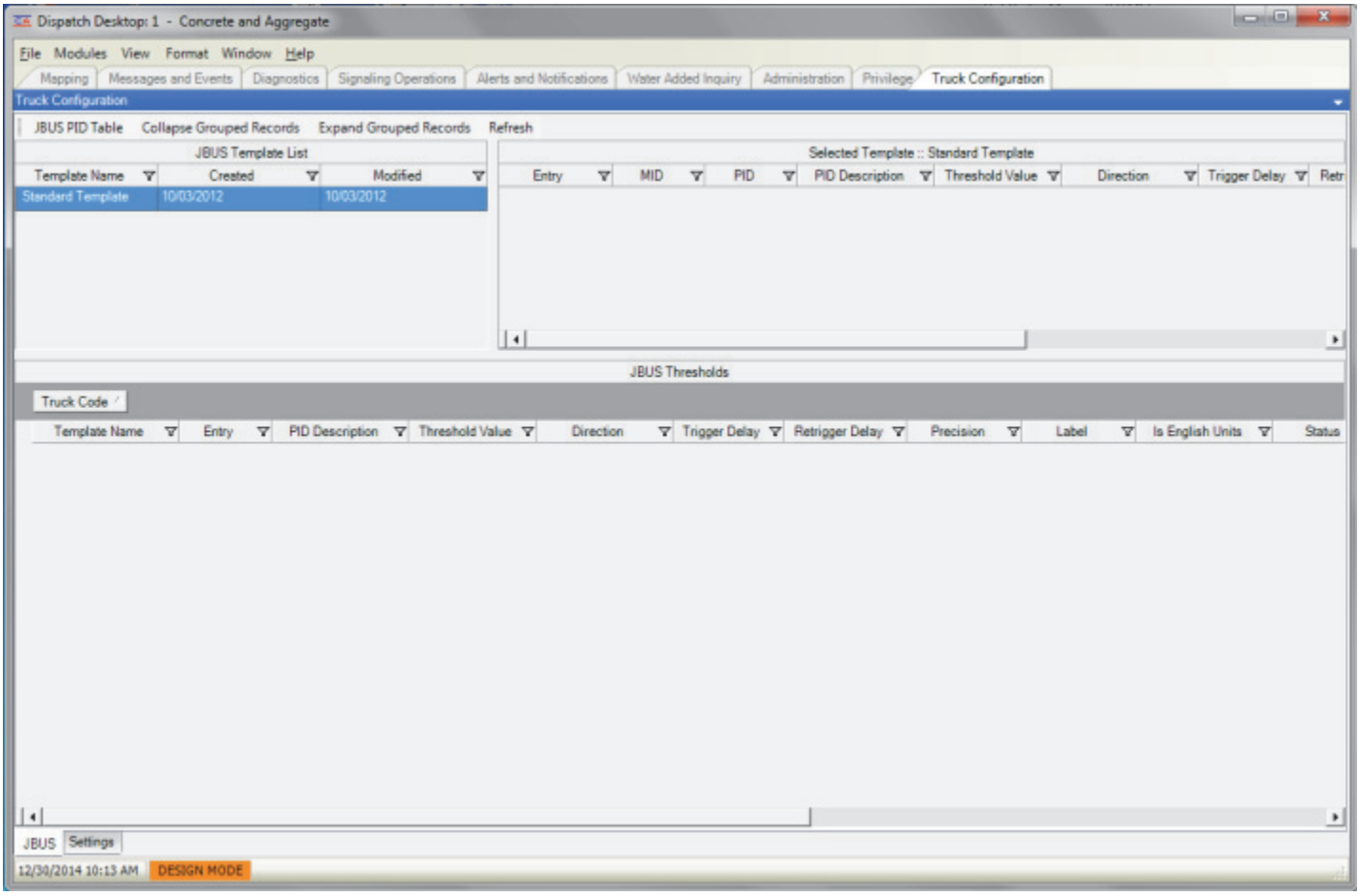
Optional Privileges

- **Diagnostics** – Allows you to find previous truck and signaling issues.
- **Allow user to save map zoom selection** – Allows you to save a new default geographical location on the map for use when fleet is loaded or a zoom to all for no map pins takes place.
- **Design Mode** – Allows for customization of columns, sort order, and filter criteria for grids that support this.

Administrator Privileges

- **Privilege** – Allows access to the Privilege module to assign privileges to users.
- **Truck Configuration** – Allows access to JBus configuration and some VSC configuration information for the trucks.
- **Administration** – Allow changes to the text mapping for various truck signals.
- **Advanced Diagnostics** – Deprecated function; being removed.

Truck Configuration


Dispatch Desktop: 1 - Concrete and Aggregate
File Modules View Format Window Help
Mapping Messages and Events Diagnostics Signaling Operations Alerts and Notifications Water Added Inquiry Administration Privilege Truck Configuration
Truck Configuration
JBUS PID Table Collapse Grouped Records Expand Grouped Records Refresh
JBUS Template List
Template Name Created Modified
Standard Template 10/03/2012 10/03/2012
Selected Template :: Standard Template
Entry MID PID PID Description Threshold Value Direction Trigger Delay
JBUS Thresholds
Truck Code
Template Name Entry PID Description Threshold Value Direction Trigger Delay Retrigger Delay Precision Label Is English Units Status
JBUS Settings
12/30/2014 10:13 AM DESIGN MODE

Truck Configuration Module

This module allows you to set the various JBUS parameters on your trucks. The top two panes are for the JBUS templates, which you can create and edit. The bottom pane contains a grid displaying every truck (each containing up to 32 parameters).The JBUS Template List pane contains a list of JBUS templates that may be applied to trucks. Click on any of the template names to populate the details pane on the right.

The Selected Template :: Standard Template pane represents the set of values associated with the selected template.

The primary purpose of the JBUS Thresholds pane is to apply templates to vehicles as well as define the vehicle-specific slots. The grid contains an entry for every truck, with 32 parameters available for each truck.The slots that are reserved by the template are shown in light green and the remaining slots that must be defined at the vehicle-level are shown in white. The vehicle slots are defined in the same fashion as the slots in the template. The JBUS THRESHOLD table populates this grid. The rows that are not used are labeled **Inactive**.

Truck Configuration Fields

This section discusses all the fields on the Truck Configuration module. They may not be in the order displayed on any one pane or the JBUS PID table.

- **Entry** - This 2-digit entry index represents the slot number within the template. The default value can be between 1 and 32. Only the default number of slots should be displayed in the grid. The remaining slots are reserved for use on a specific vehicle. The default number of slots are white, indicating they are editable. The remaining vehicle specific slots are light green, indicating that they are not editable.
- **MID** (Message Identification) / **PID** (Parameter Identification) - The combination of MID and PID identifies a specific value and what device put the value onto the JBUS. The 3-digit MID is not a user-editable field. It is derived from the PID table when a user selects a value from the **PID Description** column in the grid. The MID is described in SAE J1587.
- **PID Description** - Once the template is selected, the MID, PID, and PID Description values are populated from the JBUS PID table into this grid as default values. The PID and MID are non-editable fields, but the **Label** field is editable, if necessary.
- **Threshold Value** - This 8-digit field represents the numerical value of the threshold to be monitored. For example, to monitor road speeds above 70 mph, the threshold value is set to **70**. This value must be within the minimum and maximum range specified in the JBUS PID table (which is based on the value in the **Is English Units** field - either English or Metric). An error message is displayed if the threshold value is not within the range.
- **Direction** - This is a dropdown list of values used in conjunction with the **Threshold Value** field. The direction can be one of the following:
  - **O** - Represents over the threshold.
  - **E** - Represents equal to the threshold.
  - **U** - Represents under the threshold.

- **N** - Represents never equal to the threshold. This is used to temporarily turn off the threshold without deleting it from the unit.
- **P** - Represents power-up. If this is set, the unit sends the current JBUS data for that MID/PID combo 30 minutes after power-up of the unit.

- **Trigger** - This 3-digit number represents the delay time in seconds after the threshold is triggered for the JBUS data to be sent from the unit to the BLS.
- **Retrigger** - If the value remains over the threshold after it is triggered, this 3-digit number represents the time in minutes in which the JBUS data is resent from the unit.
- **Precision** - This drop-down list allows you to select the precision of the numeric value (from 0-9). It is based upon the MID/PID combination that is selected.
- **Label** - This 6-character label is displayed on the VSC unit. The default value is taken from the JBUS PID table when selected from the Description drop-down list. This field is editable, if necessary, but make sure the meaning is clear.
- **Is English Units** - This is a Yes/No radio button indicating whether or not the value is English (Yes = English, No = Metric). This is utilized when the values are returned from the unit to obtain the correct units from the JBUS PID table.
- **Status** - This column contains the following values:
  - **IN PROCESS** - This yellow-colored cell indicates that the entry has been edited and is waiting for the transaction to be processed.
  - **PROCESSED** - This indicates that BLS has sent the threshold out to the vehicle and has received an ACK back from the vehicle. This column is the same color as the non-editable columns (green).
  - **ERROR** - This red-colored cell indicates that BLS has tried to send threshold values to the vehicle, but the vehicle has not acknowledged receipt.
- **Status Update** - This date is updated whenever the record is updated, either by the BLS or Fleet Manager.
- **Truck Code** - This 10-character field is the designation for the truck and is taken from the TRUC table.
- **Radio Code** - This 16-character field is the designation for the radio and is taken from the TRUC table.
- **Sign** - This value is either "S" (signed) or "U" (unsigned).
- **Units** - This is the units-of-measure for the threshold value. It is measured in either English or in Metric units.
- **Scaling Factor** - This is a number used by the VSC unit to scale the event threshold values in either English or Metric units.
- **Min/Max Range** - These four values from the "JBUS PID Table" are used to determine the Min/Max range of threshold values in both English and Metric units.

Truck Configuration Context Menu

The majority of the functionality of this module comes from the right-click context menu when clicked over a grid. The context menu's for the top two grids (templates on the left and template details on the right) have the following options:

- **Add Template** - The dialog *Template Name* appears. Up to 30 characters can be entered for the template name. Click OK and a new row is added in the template list.
- **Remove Template** - This removes the currently selected (highlighted) template. A confirmation message appears. Click OK and the template is removed from the template list. Any truck that was using a removed template is set to the Standard Template (which cannot be removed) and all of its values are initialized.
- **Change Template Name** - The dialog *New Template Name* appears. Up to 30 characters can be entered for the new template name. The template name is updated for all trucks using the previous template name.
- **Add Trucks** - Before selecting this option, select a template that this truck will be associated with. When this option is selected, a dialog containing a grid appears displaying all the trucks. Select one or multiple trucks and click OK. The trucks are added to the bottom threshold grid with the associated template that was selected.
- **Update Assigned Trucks** - This updates all assigned trucks that are currently associated with the currently assigned template. If the Standard Template was selected, only the truck rows using the Standard Template are updated. The changes are not automatically updated to the truck when a change is made to a template. This option must be used whenever an update occurs on the template.

  The context menu for the bottom (threshold) grid has the following options:

- **Remove Trucks** - This removes the truck from the "JBUS Thresholds" grid. A warning message appears stating that all pending messages should be delivered to the truck before deleting it.
- **Apply Selected Template** - This changes a truck's template to the currently selected template. If one or more rows are selected that contain the same truck, then all rows containing the truck are updated with the template information.
- **Refresh Selected Template** - This updates the truck's template with the most recent changes.
- **Synchronize Trucks** - This iterates through all rows within the threshold grid creating a list of trucks that have a status of IN PROCESS. A Message 29 is created containing the truck list. This is sent through Tracking and Scheduling to the BLS where it is then sent to the VSC unit with the list of JBUS updates. The BLS then updates the status to PROCESSED when the VSC unit acknowledges the update.

JBUS PID Table

To open this table, click on the **JBUS PID Table** button at the top of the form. This table contains all information for the available PID/MID combinations. All the values to populate this table can be found in SAE J1587.

The script that creates the JBUS PID table also populates it with ten default PID/MID combinations. The SQL script that should be run in conjunction with the implementation of the Truck Configuration module adds the additional range fields and populates them with the specified ranges as shown above.

The new fields that update the table consist of minimum and maximum ranges based on English or Metric units-of-measure. All fields must be filled in when entering a new PID.

The minimum and maximum restrictions are applied after selecting a PID Description in the threshold grid (bottom) or detail grid (top right). If the **Is English Units** checkbox is set to **Yes**, then the Min/Max English restrictions are applied to the threshold value. If the checkbox is set to **No**, then the Min/Max Metric restrictions are applied to the threshold value.

Common Procedures for the Truck Configuration Module

To add a template to an unlisted vehicle:

1. Highlight the desired template in the upper grid that you want to apply to a vehicle.
2. In the bottom grid, right-click and select "Add Trucks". A selection box appears with the list of all trucks displaying Signal Unit Code, Truck Code, Description, Owner Name, and Radio Code.
3. You can select one or many trucks using Shift+Click and Ctrl+Click.
4. Click OK. A confirmation dialog appears asking if you want to assign the template to the selected trucks. The truck is added to bottom pane with the template applied and the status column is set to "IN PROCESS" for all slots and the "Status Update" is set to the current date and time.

To remove a truck from the list:

1. Highlight the truck in the lower grid.
2. Right-click the mouse and select "Remove Trucks".

   A warning message appears to ensure that there are no pending messages for the truck since the rows are going to be deleted from the table and the truck will not be "in sync" with this grid.

3. Click OK to delete this truck or Cancel to return without deletion.

To apply a template to a truck in the list:

1. Highlight the template to be applied in the upper grid.
2. Highlight the truck in the lower grid that you want the grid applied.
3. Right-click and select "Apply Selected Template". A confirmation message appears asking if you want to apply the selected template to the selected truck or trucks.
4. Click OK to apply the template. The template slots are applied to the truck only. If there are truck-specific thresholds in place they should not be overlaid. Also, the status on all template slots is changed to "IN PROCESS". This should have no effect on the vehicle-specific slots. They should remain as is.

To refresh a template to a truck or set of trucks:

1. Highlight the selected truck in the lower grid.
2. Right-click and select "Refresh Assigned Templates". A confirmation message appears asking if you want to refresh the selected truck or trucks to the assigned template. If OK is selected, this reapplies the templates already assigned to the selected truck or trucks.
3. The Status on all template slots is changed to "IN PROCESS". This should have no effect on the vehicle-specific slots. They should remain as is.

To synchronize the information with the vehicles in the field:

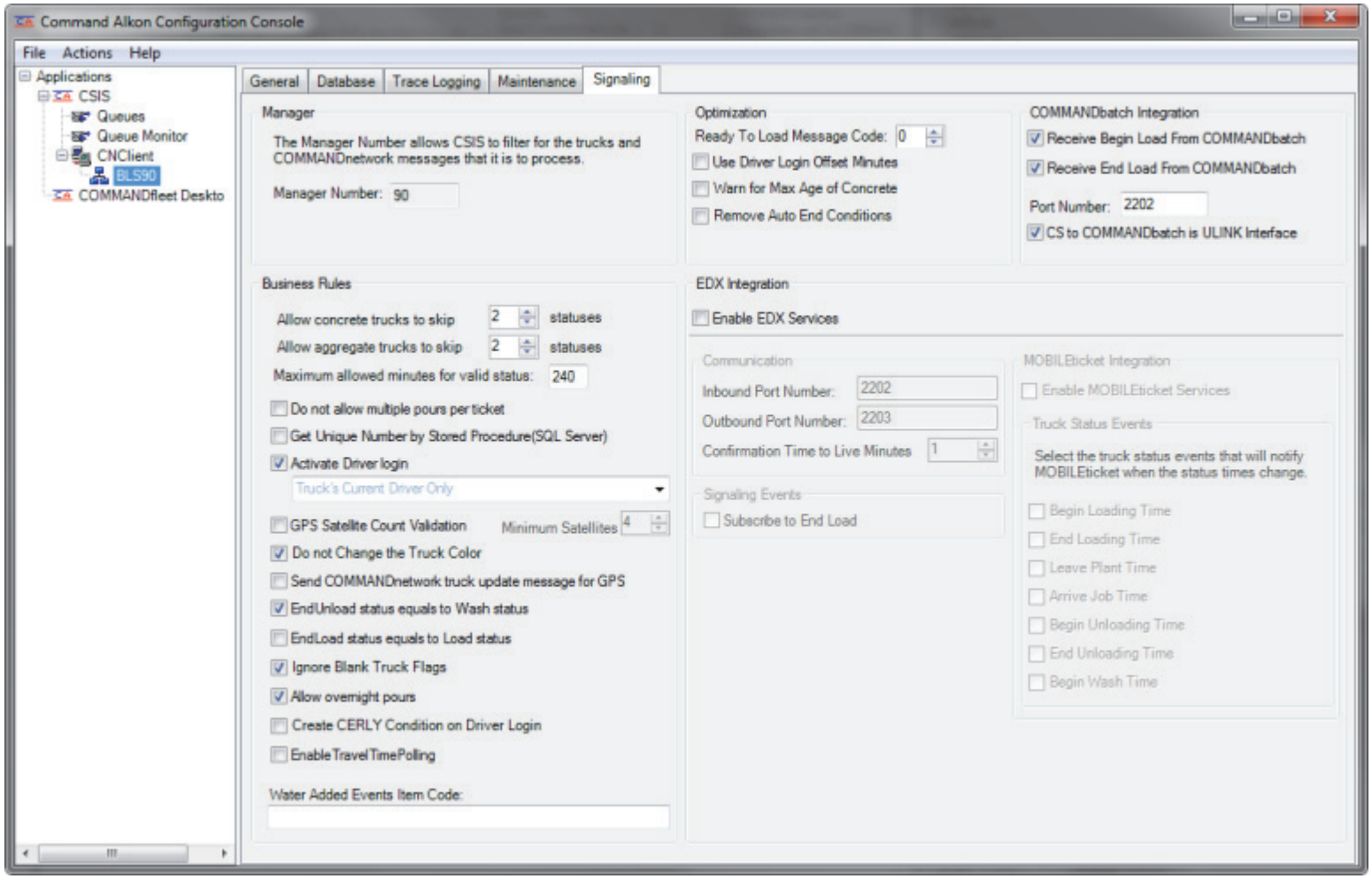
1. Tracking and Scheduling must be running in order to accept the "Message 29" text and convert it to a message to be passed through COMMANDnetwork.
2. Right-click and select "Synchronize Trucks". This passes the text to create a COMMANDnetwork "Message 29" truck list to Tracking and Scheduling. The BLS then handles the new message and processes the JBUS thresholds.

Appendix

Product Integration

The BLS Signaling Tab

Optimization

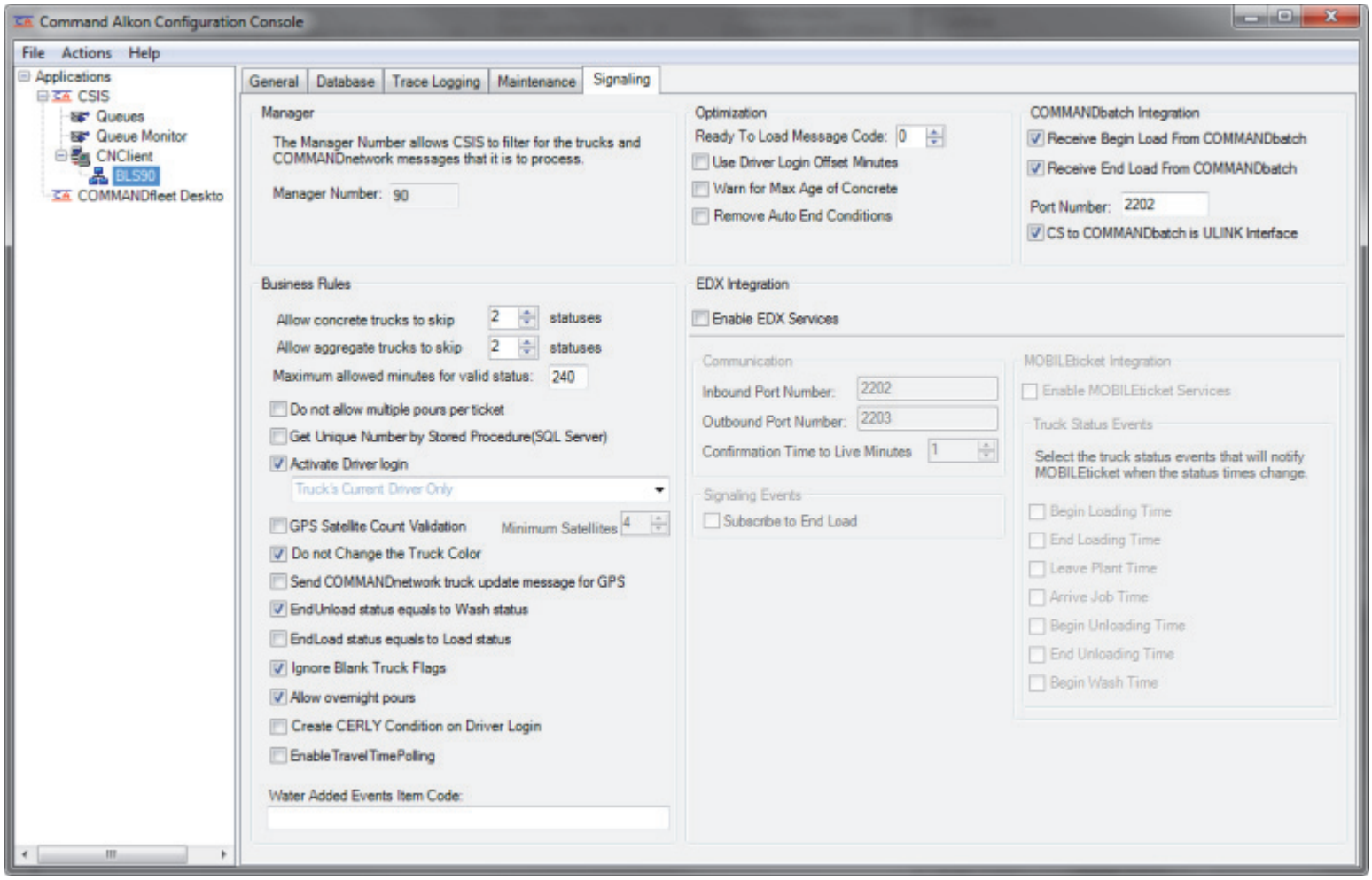


BLS: Signaling Tab

- **Create CERLY Condition on Driver Login** - This creates a CERLY condition when a driver logs in earlier than the set call-in time for that driver.
- **Enable Travel Time Polling**
- **Ready To Load Message Code** - This is a pre-load feature that allows a ticket to print but does not send the mix to the batch panel until the driver presses a button and a condition or event is met.

- **Use Driver Login Offset Minutes** - This backlogs time 5 minutes from the original punch-in time to allow time for vehicle inspection before the Optimizer uses the driver.
- **Warn for Max Age of Concrete** - Select this checkbox to make the field available for entry in COMMANDseries.
- **Remove Auto End Conditions**

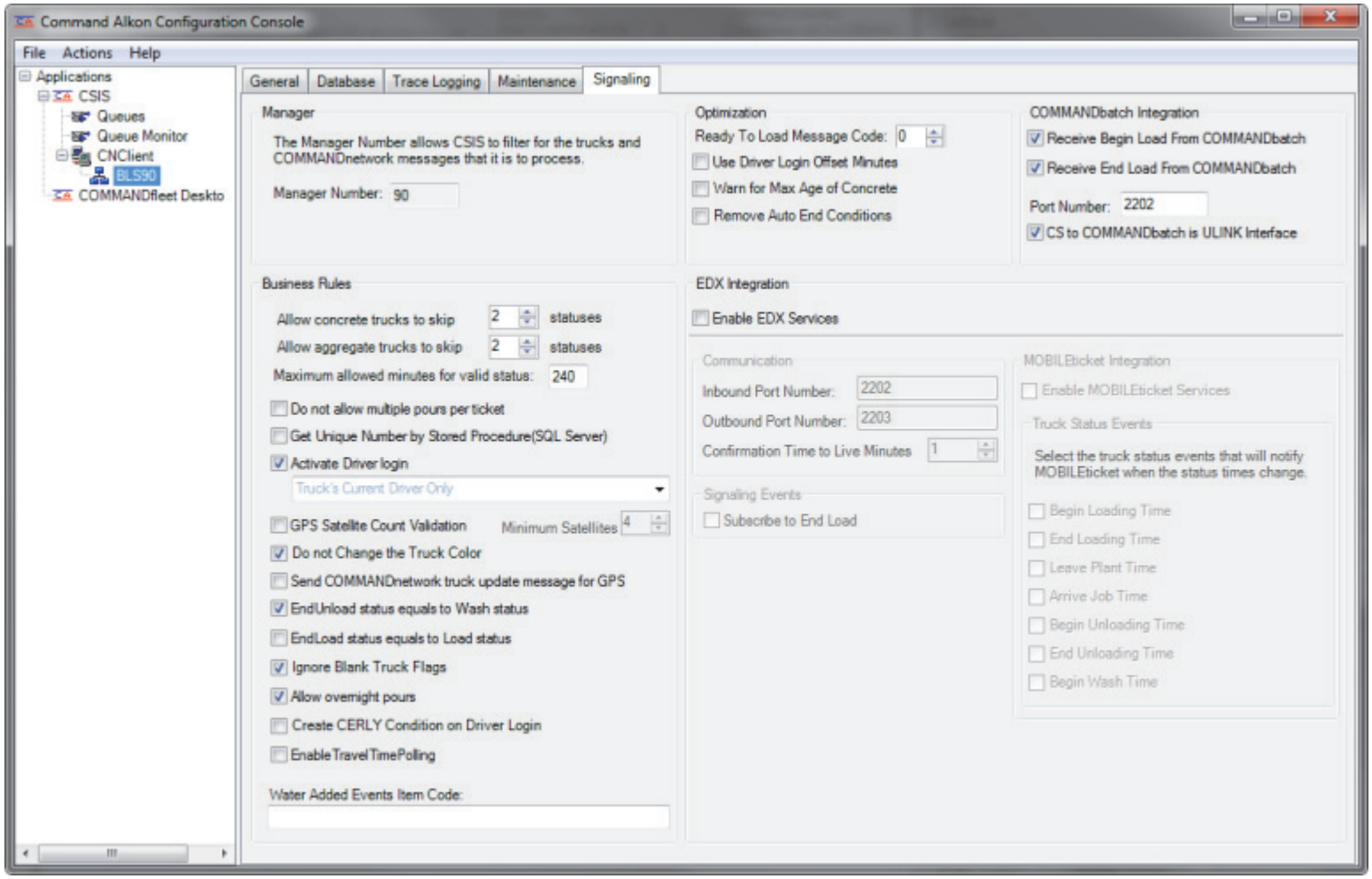
EDX


Command Alkon Configuration Console
File Actions Help
Applications
CSIS
Queues
Queue Monitor
CNClient
BLS90
COMMANDfleet Deskto
General Database Trace Logging Maintenance Signaling
Manager
The Manager Number allows CSIS to filter for the trucks and COMMANDnetwork messages that it is to process.
Manager Number: 90
Optimization
Ready To Load Message Code: 0
Use Driver Login Offset Minutes
Warn for Max Age of Concrete
Remove Auto End Conditions
COMMANDbatch Integration
Receive Begin Load From COMMANDbatch
Receive End Load From COMMANDbatch
Port Number: 2202
CS to COMMANDbatch is ULINK Interface
Business Rules
Allow concrete trucks to skip 2 statuses
Allow aggregate trucks to skip 2 statuses
Maximum allowed minutes for valid status: 240
Do not allow multiple pours per ticket
Get Unique Number by Stored Procedure(SQL Server)
Activate Driver login
Truck's Current Driver Only
GPS Satellite Count Validation Minimum Satellites 4
Do not Change the Truck Color
Send COMMANDnetwork truck update message for GPS
EndUnload status equals to Wash status
EndLoad status equals to Load status
Ignore Blank Truck Flags
Allow overnight pours
Create CERLY Condition on Driver Login
Enable Travel Time Polling
Water Added Events Item Code:
EDX Integration
Enable EDX Services
Communication
Inbound Port Number: 2202
Outbound Port Number: 2203
Confirmation Time to Live Minutes 1
Signaling Events
Subscribe to End Load
MOBILEticket Integration
Enable MOBILEticket Services
Truck Status Events
Select the truck status events that will notify MOBILEticket when the status times change.
Begin Loading Time
End Loading Time
Leave Plant Time
Arrive Job Time
Begin Unloading Time
End Unloading Time
Begin Wash Time

BLS: Signaling Tab

- **Enable EDX Services** - This option turns EDX integration on or off. If enabled, the following two fields are available.
  - **Service Port Number** - This refers to the EDX port number.
  - **Subscribe to Endload** - This subscribes to the Endload plugin.

COMMANDbatch



BLS: Signaling Tab

- **Receive BeginLoad from COMMANDbatch** - This is commonly referred to as VSCSTART and is valid for COMMANDbatch users only.
- **Receive EndLoad from COMMANDbatch** - This is commonly referred to as VSCEND and is valid for COMMANDbatch users only.
- **Port Number** - Leave the listening port at 2202 (default).
- **CS to COMMANDbatch is ULINK interface** - If ULINK is used, select this checkbox.